BD-D8200M
BD-D8500M

BD-HDD Combo
user manual

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SAMSUNG

Key features

Blu-ray™ Disc Features

Blu-ray Discs support the highest quality HD video available in the industry - Large capacity means no compromise on video quality.

The following Blu-ray Disc features are disc dependant and will vary.
Appearance and navigation of features will also vary from disc to disc.
Not all discs will have the features described below.

For High-Definition Playback

To view high-definition contents on a Blu-ray Disc, you need an HDTV (High Definition Television). Some Blu-ray Discs may require you to use the product's HDMI OUT to view high-definition content.
The ability to view high-definition content on Blu-ray Discs may be limited depending on the resolution of your TV.

BD-LIVE

You can use a Blu-ray Disc that supports BD-LIVE to download content provided by the disc manufacturer through a network connection.

BD-HDD Combo Features

3D

This product can play 3D contents through an HDMI cable.
To implement the 3D effect, connect a 3D device (3D-compliant AV receiver, 3D-compliant TV) to the product using an HDMI cable, and play the 3D content while wearing 3D vision glasses.

3D Conversion

When you play 2D contents, you can convert 2D into 3D contents by pressing the **2D➡3D** button on the remote control.

Smart Hub

You can download various for pay or free-of-charge applications through a network connection. These applications provide a range of Internet services and content including news, weather forecasts, stock market quotes, games, movies, and music.

AllShare

You can play videos, music, and photos saved on your devices (such as your PC, mobile phones, or NAS) through a network connection.

Playing multimedia files

You can use the USB connection to play various kinds of multimedia files (MP3, JPEG, DivX, etc.) located from a USB storage device.

Digital TV

- This product have dual DTV Tuner. So user can change DTV Programme during recording a programme. As the benefit of dual tuner eliminates the unconvinience of retaining channel when you want to record it.
- Functionalities related to Digital TV (DVB) are only available in countries/areas where DVB-T (MPEG2 and MPEG4 AVC) digital terrestrial signals are broadcasted or where you are able to access to a compatible DVB-C (MPEG2 and MPEG4 AAC) cable-TV service. Please check with your local dealer the possibility to receive DVB-T or DVB-C signal.
- DVB-T is the DVB European consortium standard for the broadcast transmission of digital terrestrial television and DVB-C is that for the broadcast transmission of digital TV over cable. However, some differentiated features like EPG (Electric Programme Guide), VOD (Video On Demand) and so on, are not included in this specification. So, they cannot be workable at this moment.
- Some Digital TV functions might be unavailable in some countries or regions and DVB-C might not work correctly with some cable service providers.
- This product can record TV channel in HDD or external devices.

Safety Information

Warning

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK).
NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.	**CAUTION**: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	This symbol indicates important instructions accompanying the product.

Do not install this equipment in a confined space such as a bookcase or similar unit.

WARNING

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

CAUTION

BD-HDD Combo USES AN INVISIBLE LASER BEAM WHICH CAN CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE BD-HDD Combo CORRECTLY AS INSTRUCTED.

CAUTION

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

This product satisfies CE regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

IMPORTANT NOTE

The mains lead on this equipment is supplied with a molded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug. If it requires replacing, a fuse approved to BS1362 of the same rating must be used.

Never use the plug with the fuse cover omitted if the cover is detachable. If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug. Replacement covers are available from your dealer.

If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.

However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug. Do not connect the plug to a mains jack, as there is a risk of shock hazard from the bared flexible cord.

To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

The product unit accompanying this user manual is licenced under certain intellectual property rights of certain third parties. This licence is limited to private non-commercial use by end-user consumers for licenced contents.

No rights are granted for commercial use.

The licence does not cover any product unit other than this product unit and the licence does not extend to any unlicenced product unit or process conforming to ISO/IEC 11172-3 or ISO/IEC 13818-3 used or sold in combination with this product unit. The licence only covers the use of this product unit to encode and/or decode audio files conforming to the ISO/IEC 11172-3 or ISO/IEC 13818-3. No rights are granted under this licence for product features or functions that do not conform to the ISO/IEC 11172-3 or ISO/IEC 13818-3.

Safety Information

Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below.
Keep these operating instructions handy for future reference.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including AV Receivers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Viewing using 3D function

IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D PICTURES.
Read and understand the following safety information before using the 3D function.

- Some viewers may experience discomfort while viewing 3D TV such as dizziness, nausea, and headaches.
  If you experience any such symptom, stop viewing 3D TV, remove the 3D Active Glasses, and rest.
- Watching 3D images for an extended period of time may cause eye strain. If you feel eye strain, stop viewing 3D TV, remove your 3D Active Glasses, and rest.
- A responsible adult should frequently check on children who are using the 3D function. If there are any reports of tired eyes, headaches, dizziness, or nausea, have the child stop viewing 3D TV and rest.
- Do not use the 3D Active Glasses for other purposes (such as general eyeglasses, sunglasses, protective goggles, etc.)
- Do not use the 3D function or 3D Active Glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may cause you to bump into objects, trip, and/or fall, and cause serious injury.

• When displaying 3D programme with this model, the actual screen may appear as shown below:

Screen Display		Description
	Side by Side	Same screen duplicates horizontally.
	Top & Bottom	Same screen duplicates vertically.

• 3D programme reception, recording and playback of this model may not fully support 3D, due to the 3D broadcast format is not yet standardized worldwide. It is not the product's malfunction or disorder.

Disc Storage & Management

Disc Handling

Disc Shape

• Use discs with regular shapes. If you use an irregular disc (a disc with a special shape), you can damage the product.

Holding discs

• Avoid touching the surface of a disc where data has been recorded.

Blu-ray Discs

• Do not leave a Blu-ray Disc in the product for long periods of time. Remove the Blu-ray Disc from the product and store it in its case.

• Be careful not to scratch or leave fingerprints on the surface of the Blu-ray Disc.

DVD-VIDEO, Audio CD (CD-DA)

• Wipe off dirt or contamination on the disc with a soft cloth.

Disc Storage

Be careful not to damage the disc because the data on these discs is highly vulnerable to the environment.

• Do not keep under direct sunlight.
• Keep in a cool ventilated area.
• Store vertically.
• Keep in a clean protection jacket.
• If you move your product suddenly from a cold place to a warm place, condensation may occur on the operating parts and lens and cause abnormal disc playback. If this occurs, unplug the product, wait for two hours, and then connect the plug to the power outlet. Then, insert the disc, and try to play back again.

HDD (Hard Disk Drive)

The hard disk has a high storage density, which enables long recording durations and quick access to written data. However, it can easily be damaged by shock, vibration or dust and should be kept away from magnets.
To avoid losing important data, observe the following precautions.

• Do not use the BD-HDD Combo in a place subject to extreme changes in temperature.
• Do not apply a strong shock to the BD-HDD Combo.
• Do not place the BD-HDD Combo in a location subject to mechanical vibrations or in an unstable location.
• Do not place the BD-HDD Combo on top of a heat source.
• Do not disconnect the AC power cord while the power is on.
• Do not attempt to change the hard disk. This may result in a malfunction.

Should the hard disk be damaged, you cannot recover lost data. The hard disk is only a temporary storage space.

Safety Information

Handling Cautions

- Do not write on the printed side with a ball-point pen or pencil.
- Do not use record cleaning sprays or antistatic sprays to clean discs. Also, do not use volatile chemicals, such as benzene or thinner.
- Do not apply labels or stickers to discs. (Do not use discs fixed with exposed tape adhesive or leftover peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.
- Do not load warped or cracked discs.
- Before connecting other components to this product, be sure to turn them off.
- Do not move the product while it is playing a disc. The disc can be scratched or damaged and the product's internal parts can be damaged.
- Do not put a flower vase filled with water or any small metal objects on the product.
- Be careful not to put your hand into the disc slot.
- Do not place anything other than the disc in the disc slot.
- Interference from exterior sources such as lightening and static electricity can affect the normal operation of this product. If this occurs, turn the product off and on again with the **POWER** button, or disconnect and then reconnect the AC power cord to the AC power outlet. The product will operate normally.
- Be sure to remove the disc and turn off the product after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the product for long periods of time.
- To clean a disc, wipe it in a straight line from the inside to the outside of the disc.
- Do not expose the product to any liquid.
- When the AC plug is connected to a wall outlet, the product will still draw power (standby mode) when it is turned off.

- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The main plug is used as a disconnect device and shall stay readily operable at any time.
- Do not touch the power plug with a wet hand. Otherwise, it can cause an electric shock.
- Do not share one power socket with multiple electric devices. Otherwise, it may cause an overheat, resulting in a fire.
- If you encounter an abnormal noise, burning smell or smoke, turn off the power switch immediately and disconnect the power plug from the wall outlet. Then, contact the nearest customer centre for technical assistance. If you still use the product as it is, this may cause an electric shock or fire.

Maintenance of Cabinet

Before you clean the Blu-ray Disc's cabinet, be sure to disconnect the AC power cord from the AC outlet.
- Do not use benzene, thinner, or other solvents for cleaning.
- Wipe the cabinet with a soft cloth.

Restrictions on Playback

- This product may not respond to all operating commands because some Blu-ray Disc, DVD, and CD discs allow specific or limited operation and provide only certain features during playback.
  Please note that this is not a defect in the product.
- Samsung cannot guarantee that this product will play every disc bearing the Blu-ray Disc, DVD or CD logo because disc formats evolve, and problems and errors may occur during the creation of Blu-ray Disc, DVD, and CD software and/or the manufacture of discs.
  Please contact the SAMSUNG customer care centre if you have questions or encounter difficulty in playing Blu-ray Disc, DVD, or CD discs in this product. Also, refer to rest of this user manual for additional information on playback restrictions.

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Before using the User Manual

Disc Types and Contents your product can play

Term	Logo	Icon	Definition
VIDEO	Blu-ray Disc / Blu-ray 3D™	BD-ROM / BD-RE/-R	Indicates a function available on a BD-ROM or BD-RE/-R disc recorded in the BD-RE format.
	DVD VIDEO / DVD RW / DVD R / DVD+ReWritable / DVD+R / DVD+R	DVD-VIDEO / DVD+RW/±R	Indicates a function available on a DVD-VIDEO or recorded DVD+RW/DVD-RW(V)/DVD-R/+R discs that have been recorded and finalized.
	-	DivX/MKV/MP4	Indicates a function available in a CD-RW/-R, DVD-RW/-R, BD-RE/-R disc or a USB storage media containing DivX, MKV, MP4 contents.
MUSIC	COMPACT DIGITAL AUDIO	Audio CD	Indicates a function available on an audio CD-RW/-R (CD-DA format).
	-	MP3/WMA	Indicates a function available in a CD-RW/-R, DVD-RW/-R, BD-RE/-R disc or a USB storage media containing MP3 or WMA contents.
PHOTO	-	JPEG	Indicates a function available in a CD-RW/-R, DVD-RW/-R, BD-RE/-R disc or a USB storage media containing JPEG contents.
VIDEO MUSIC PHOTO	-	HDD	Indicates a function available on the HDD.

✎ **NOTE**

- The product may not play certain CD-RW/-R and DVD-R because of the disc type or recording conditions.
- If a DVD-RW/-R disc has not been recorded properly in DVD video format, it will not be playable.
- Your product will not play content that has been recorded on a DVD-R at a bit-rate that exceeds 10 Mbps.
- Your product will not play content that has been recorded on a BD-R or USB device at a bit rate that exceeds 30 Mbps.

Disc types your product cannot play

- HD DVD
- DVD-ROM/PD/ MV-Disc, etc
- DVD-RAM
- Super Audio CD (except CD layer)
- DVD-RW(VR mode)
- CVD/CD-ROM/CDV/ CD-G/CD-I/LD (CD-Gs play audio only, not graphics.)
- 3.9 GB DVD-R Disc for Authoring.

Getting Started

✎ **NOTE**

- Some commercial discs and DVDs purchased outside your region may not play on this product.

- Playback may not work for some types of discs, or when you use specific operations, such as angle change and aspect ratio adjustment. Information about the discs is written in detail on the disc box. Please refer to this if necessary.

- Do not allow the disc to become dirty or scratched. Fingerprints, dirt, dust, scratches or deposits of cigarette smoke on the recording surface may make it impossible to use the disc for playback.

- When you play a BD-J title, loading may take longer than a normal title or some functions may perform slowly.

- This product may not respond to all operating commands because some Blu-ray Disc, DVD, and CD discs allow specific or limited operation and provide only certain features during playback. Please note that this is not a defect in the product.

- Samsung cannot guarantee that this product will play every disc bearing the Blu-ray Disc, DVD or CD logo because disc formats evolve, and problems and errors may occur during the creation of Blu-ray Disc, DVD, and CD software and/or the manufacture of discs.
Please contact the SAMSUNG customer care centre if you have questions or encounter difficulty when playing Blu-ray Disc, DVD, or CD discs in this product. Also, refer to rest of this user manual for additional information on playback restrictions.

HDD Recording

You can record digital broadcast on the internal HDD as below.

Broadcast Type	BD-D8200M (250GB)		BD-D8500M (500GB)	
	Recording Time	Estimated Bitrate	Recording Time	Estimated Bitrate
HD	64 Hrs	8 Mbps	130 Hrs	8 Mbps
SD	102 Hrs	5 Mbps	208 Hrs	5 Mbps

Depending on the bitrate of broadcast programme, available recording time may be decreased or increased.

Disc Types

BD-ROM

Blu-ray ROM discs can only be played back. This product can play back pre-recorded commercial BD-ROM discs.

BD-RE/-R

Blu-ray RE/-R discs can be recorded on and played back.
This product can play back a BD-RE/-R disc recorded by other compatible Blu-ray Disc recorders.

DVD-VIDEO

- This product can play back pre-recorded commercial DVDs (DVD-VIDEO discs) with movies.
- When switching from the first layer to the second layer of a dual-layered DVD-VIDEO disc, there may be momentary distortion in the image and sound. This is not a malfunction of the product.

DVD-RW/-R/+R

This product can play back a DVD-RW/-R/+R disc recorded and finalized with a DVD video recorder. The ability to play back may depend on recording conditions.

DVD+RW

- This product can play back a DVD+RW disc recorded with a DVD Video recorder. The ability to play back may depend on recording conditions.

Audio CD (CD-DA)

- This product can play back CD-DA format audio CD-RW/-R discs.
- The product may not be able to play some CD-RW/-R discs due to the condition of the recording.

CD-RW/-R

- Use a 700MB (80 minute) CD-RW/-R disc.
  If possible, do not use an 800MB (90 minute) or
  larger disc, as the disc may not play back.
- If the CD-RW/-R disc was not recorded as a
  closed session, you may experience delays
  when playing back the beginning of the disc or
  all recorded files may not play.
- Some CD-RW/-R discs may not play on this
  product, depending on the device which was
  used to burn them. For contents recorded on
  CD-RW/-R media from CDs for your personal
  use, playability may vary depending on the
  contents and discs.

AVCHD (Advanced Video Codec High Definition)

- This product can play back AVCHD format
  discs. These discs are normally recorded and
  used in camcorders.
- The AVCHD format is a high definition digital
  video camera format.
- The MPEG-4 AVC/H.264 format compresses
  images with greater efficiency than the
  conventional image compressing format.
- Some AVCHD discs use the "x.v.Colour" format.
  This product can play back AVCHD discs that
  use "x.v.Colour" format.
- "x.v.Colour" is a trademark of Sony Corporation.
- "AVCHD" and the AVCHD logo are trademarks
  of Matsushita Electronic Industrial Co., Ltd. and
  Sony Corporation.

✎ **NOTE**

  ▪ Some AVCHD format discs may not play, depending
    on the recording condition.
    AVCHD format discs need to be finalized.

  ▪ "x.v.Colour" offers a wider colour range than normal
    DVD camcorder discs.

  ▪ Some DivX, MKV and MP4 format discs may not
    play, depending on the video resolution and frame
    rate condition.

Region Code

Both products and discs are coded by region.
These regional codes must match for a disc to
play. If the codes do not match, the disc will not
play.
The Region Number for this product is displayed
on the rear panel of the product.

Disc Type	Region Code	Area
Blu-ray Disc	(A)	North America, Central America, South America, Korea, Japan, Taiwan, Hong Kong and South East Asia.
	(B)	Europe, Greenland, French territories, Middle East, Africa, Australia and New Zealand.
	(C)	India, China, Russia, Central and South Asia.
DVD-VIDEO	1	The U.S., U.S. territories and Canada
	2	Europe, Japan, the Middle East, Egypt, South Africa, Greenland
	3	Taiwan, Korea, the Philippines, Indonesia, Hong Kong
	4	Mexico, South America, Central America, Australia, New Zealand, Pacific Islands, Caribbean
	5	Russia, Eastern Europe, India, most of Africa, North Korea, Mongolia
	6	China

Getting Started

Supported File Formats

Notes on the USB connection

- Supported devices: USB storage media, MP3 product, digital camera, USB card reader
- Does not support if a folder or file name is longer than 128 characters.
- A certain USB/digital camera device may not be compatible with the product.
- FAT16, FAT32 and NTFS file systems are supported.
- Connect directly to the product's USB port. Connecting through another cable may raise problems with USB compatibility.
- Inserting more than one memory device to a multi-card reader may not operate properly.
- Supports the PTP protocol.
- Do not disconnect USB device during a "loading" process.
- Bigger the image resolution, the longer the delay to displaying.
- DRM applied MP3 files downloaded from a commercial site are not played back.
- If the problem of the unrecognized USB device persists or the internal file list is corrupt or a certain file could not be played, connect the USB device to the PC and format it in a proper file system, then check it again.
- If the file deleted from your PC still appears in Media Play, use "Empty Recycle Bin" on your desktop to delete it completely.
- Some USB devices supporting the power saving mode may switch the saving mode of the BD product to Off automatically when connected with each other.
- Need-to-Know List before using Media Play
  - Media Play only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers and USB HDD. (HUB is not supported.)
  - MSC supports Music, Photo and Video files, while a PTP device supports Photo files only.
  - MTP (Media Transfer Protocol) is not supported.
  - The file system supports FAT16, FAT32 and NTFS (read only).
  - Before connecting your device to the product, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
  - Do not disconnect the USB device while it is loading.
  - If some devices require excessive power, USB device may be limited by the circuit safety device.
- You must remove the USB storage device safely (by performing the "Safely Remove USB" function) in order to prevent a possible damage to the USB memory. Press the **MENU** button to move to the home menu, and select the **YELLOW (C)** button and press the **ENTER** button.
- If you insert the disc when playing USB storage device, the device mode is changed to "DVD or CD" automatically.
- When the Audio CD (CD-DA), MP3 and JPEG files are in stop mode, you can't see full screen by pressing the **FULL SCREEN** button on the remote control.
- A Certain USB HDD Device may not be compatible with this product.

Video File Support

File Extention	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbsp)	Audio Codec
*.avi	AVI	DivX 3.11/4.x/5.1/6.0	1920x1080	6 ~ 30	8	MP3 AC3 LPCM ADPCM DTS Core
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP/MP/HP	1920x1080	6 ~ 30	25	
		MPEG4 SP/ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	1920x1080	6 ~ 30	8	
*.mkv	MKV	DivX 3.11/4.x/5.1/6.0	1920x1080	6 ~ 30	8	MP3 AC3 LPCM ADPCM DTS Core
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP/MP/HP	1920x1080	6 ~ 30	25	
		MPEG4 SP/ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	1920x1080	6 ~ 30	8	
*.asf	ASF	DivX 3.11/4.x/5.1/6.0	1920x1080	6 ~ 30	8	MP3 AC3 LPCM ADPCM WMA
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP/MP/HP	1920x1080	6 ~ 30	25	
		MPEG4 SP/ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	1920x1080	6 ~ 30	8	
*.wmv	ASF	Window Media Video v9	1920x1080	6 ~ 30	25	WMA
*.mp4	MP4	H.264 BP/MP/HP	1920x1080	6 ~ 30	25	MP3 ADPCM AAC
		MPEG4 SP/ASP	1920x1080	6 ~ 30	8	
		XVID	1920x1080	6 ~ 30	8	
*.3gp	3GPP	H.264 BP/MP/HP	1920x1080	6 ~ 30	25	ADPCM AAC HE-AAC
		MPEG4 SP/ASP	1920x1080	6 ~ 30	8	
*.vro	VRO VOB	MPEG2	1920x1080	24/25/30	30	AC3 MPEG LPCM
		MPEG1	352x288	24/25/30	30	
*.mpg *.mpeg	PS	MPEG1	352x288	24/25/30	30	AC3 MPEG LPCM AAC
		MPEG2	1920x1080	24/25/30	30	
		H.264	1920x1080	6 ~ 30	25	
*.ts *.tp *.trp	TS	MPEG2	1920x1080	24/25/30	30	AC3 AAC MP3 DD+ HE-AAC
		H.264	1920x1080	6 ~ 30	25	
		VC1	1920x1080	6 ~ 30	25	

Getting Started

▪ Limitations

- Even when the file is encoded by a supported codec mentioned above, a file might not be played if its content has a problem.
- Normal playback is not guaranteed if the file's container information is wrong or the file itself is corrupted.
- Files having higher Bit rate/frame rate than standard may stutter with sound/video playback.
- Seek (skip) function is not available if the file's index table is damaged.
- When you playback a file remotely through network connection, video playback may stutter depending on established network speed.

▪ Video decoder

- Supports up to H.264 Level 4.1
- Does not support H.264 FMO/ASO/RS, VC1 SP/MP/AP L4 and AVCHD
- XVid, MPEG4 SP, ASP:
  Below 1280x720: 60 frames max
  Above 1280x720: 30 frames max
- Does not support GMC 2 or higher

▪ Audio decoder

- Supports WMA 7, 8, 9 and STD
- Does not support WMA 9 PRO multi-channel lossless audio decoding if number of channels is more than 2
- Does not support WMA sampling rate of 220/50Hz mono
- Supports DTS Core (5.1 ch, 16 bit, 48kHz) only
- Does not support APDCM MULAW, ALAW

▪ Optical Media

- CD Media
  Bit Rate : Max 9.6Mbps
- DVD Media
  Bit Rate : Max 22.16Mbps

Music File Support

File Extension	Container	Audio Codec	Support Range
*.mp3	MP3	MP3	-
*.wma	WMA	WMA	Compliant with WMA version 10 * Sampling rates (in kHz) - 8, 11, 16, 22, 32, 44.1, 48 * Bit rates - All bit-rates in the range 5kbps to 384kbps

Connect a USB device before using the Time shift and Recorded TV functions

- Do not use a USB memory stick. We do not support a USB memory stick.

- We recommend using a USB HDD with at least 5400 rpm, but a USB HDD of RAID type is not supported.

- To use the **Time shift** mode or the **Recorded TV** function, a connected USB device must be execute the **Device Format** function to proper form for recording.
  - During the device formatting, do not disconnect the device while formatting is in progress. If you format the device, all files will be deleted.
  - Before formatting your device to this product, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- Recorded videos are DRM (digital rights managements) protected and cannot be played on a PC or other product. Note that files saved on the TV cannot be used after the main board is changed.
- If available storage is left less than 10MB during the recording, recording is finished automatically.
- If the USB device has failed the **Device Performance Test**, the USB device must go through the **Device Format** and **Device Performance Test** again before you record with the **Guide** or **Channel Manager**.
- For more information, see your user's manual.

Blu-ray Disc Compatibility

Blu-ray Disc is a new and evolving format. Accordingly, disc compatibility issues are possible. Not all discs are compatible and not every disc will play back. For additional information, refer to the Compliance and Compatibility Notice section of this user manual.

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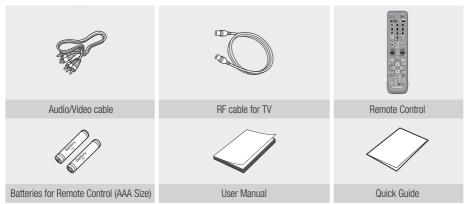
Getting Started

Logos of Discs the Product Can Play
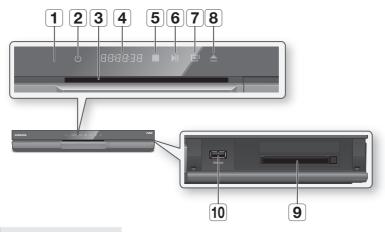
Blu-ray Disc	3D Blu-ray Disc	DTS-HD Master Audio	DivX
BD-LIVE	Dolby TrueHD	PAL broadcast System in U.K., France, Germany, etc.	Java

Accessories

Check for the supplied accessories below.

Audio/Video cable	RF cable for TV	Remote Control
Batteries for Remote Control (AAA Size)	User Manual	Quick Guide

Front Panel

1	REMOTE CONTROL SENSOR	Detects signals from the remote control.
2	POWER BUTTON	Turns the product on and off.
3	DISC SLOT	Inserts a disc.
4	DISPLAY	Displays the playing status, time, etc.
5	STOP BUTTON	Stops disc playback.
6	PLAY/PAUSE BUTTON	Plays a disc or pauses playback.
7	ENTER BUTTON	Selects menu items or starts a disc.
8	EJECT BUTTON	Ejects a disc.
9	COMMON INTERFACE SLOT	To watch paid channels, insert the CI CAM with CI or CI+ CARD.
10	USB HOST	It can be used for software upgrades and MP3/JPEG/DivX/MKV/MP4 playback.
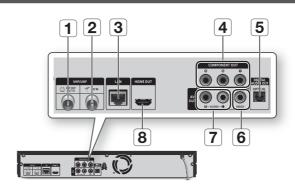
✎ NOTE
- When the product displays the Blu-ray Disc menu, you may not start the movie by pressing the Play button on the product or the remote. To play the movie, you must select Play Movie or Start in the disc menu, and then press the ENTER button.
- You must obtain a "CI CAM with CI or CI+ CARD" from a local cable service provider.

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Getting Started

- When removing the "CI CAM with CI or CI+ CARD", carefully pull it out with your hands since dropping the "CI CAM with CI or CI+ CARD" may cause damage to it.
- Insert the "CI CAM with CI or CI+ CARD" in the direction marked on the card.
- The location of the CI card slot may be different depending on the model.
- "CI CAM with CI or CI+ CARD" is not supported in some countries and regions; check with your authorized dealer. If you have any problems, please contact a service provider.
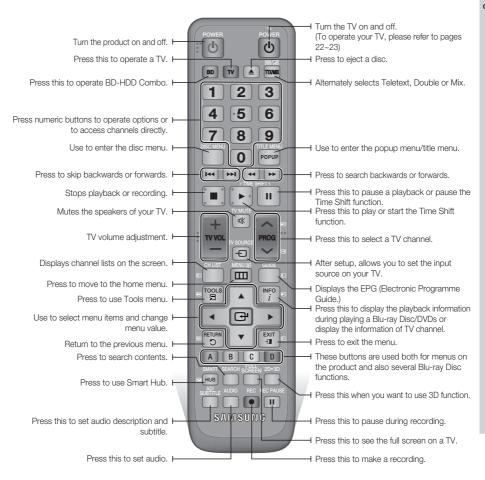
Rear Panel

1	**ANT OUT (TO TV)**	Connects RF cable to TV antenna input.
2	**ANT IN**	Connects RF cable from antenna.
3	**LAN**	Use for network based services (See pages 73~82), BD-LIVE, and software upgrades using a network connection.
4	**COMPONENT OUT**	Connects to external devices that have Component video input.
5	**DIGITAL AUDIO OUT (OPTICAL)**	Connects to an AV receiver.
6	**VIDEO OUT**	Connects to the video input of external devices using a video cable.
7	**AUDIO OUT**	Connects to the audio input of external devices using audio cables.
8	**HDMI OUT**	Using an HDMI cable, connect this HDMI output terminal to the HDMI input terminal on your TV for the best quality picture or to your AV receiver for the best quality sound.

Remote Control

Tour of the Remote Control

Turn the product on and off.

Press this to operate a TV.

Press this to operate BD-HDD Combo.

Press numeric buttons to operate options or to access channels directly.

Use to enter the disc menu.

Press to skip backwards or forwards.

Stops playback or recording.

Mutes the speakers of your TV.

TV volume adjustment.

Displays channel lists on the screen.

Press to move to the home menu.

Press to use Tools menu.

Use to select menu items and change menu value.

Return to the previous menu.

Press to search contents.

Press to use Smart Hub.

Press this to set audio description and subtitle.

Press this to set audio.

Turn the TV on and off.
(To operate your TV, please refer to pages 22~23)

Press to eject a disc.

Alternately selects Teletext, Double or Mix.

Use to enter the popup menu/title menu.

Press to search backwards or forwards.

Press this to pause a playback or pause the Time Shift function.

Press this to play or start the Time Shift function.

Press this to select a TV channel.

After setup, allows you to set the input source on your TV.

Displays the EPG (Electronic Programme Guide.)

Press this to display the playback information during playing a Blu-ray Disc/DVDs or display the information of TV channel.

Press to exit the menu.

These buttons are used both for menus on the product and also several Blu-ray Disc functions.

Press this when you want to use 3D function.

Press this to pause during recording.

Press this to see the full screen on a TV.

Press this to make a recording.

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Getting Started

Setting the Remote Control to Operate Your TV

To determine whether your television is compatible, follow the instructions below.

1. Turn your television on.
2. Point the remote control towards the television.
3. Press the **TV** button to set the TV mode.
4. Press and hold the **TV POWER** button, and then enter the two-figure code in the table to the right that corresponds to the brand of your television by pressing the appropriate number buttons.
   If your television is compatible with the remote control, it will Turn off.
   The remote is now programmed to operate the TV.

✎ **NOTE**

- If several codes are listed for your television brand, try each one in turn until you find one that works.
- If you replace the remote control's batteries, you must set the brand code again.

You can control certain functions of your TV with this remote control.

Button	Function
TV POWER	Used to Turn the television on and off.
Number	Used to input number directly.
TV VOL +/−	Used to adjust the volume of the television.
TV MUTE	Used to toggle the sound on and off.
PROG (∧/∨)	Used to select the desired channel.
TV SOURCE	Used to select an external source connected to the TV.
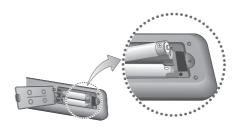
In case of Samsung TV, below buttons are also compatible with this remote control.

Button	Function
MENU	Used to move to the TV menu.
TOOLS	Used to display Tools menu.
▲▼◄►	Used to move the cursor or select an item.
ENTER	Used to select menu items.
INFO	Used to display INFO menu.
RETURN	Return to the previous menu.
EXIT	Used to exit the menu.
COLOUR (A,B,C,D)	These buttons are used for several functions.

✎ **NOTE**

- The functions listed above will not necessarily work on all televisions. If you encounter problems, use the TV remote control.

Installing batteries

✎ **NOTE**

- If the remote does not operate properly:
  - Check the polarity +/− of the batteries.
  - Check if the batteries are drained.
  - Check if the remote sensor is blocked by obstacles.
  - Check if there is any fluorescent lighting nearby.

! **CAUTION**

- Dispose of batteries according to local environmental regulations. Do not put them in the household trash.

TV Control Codes
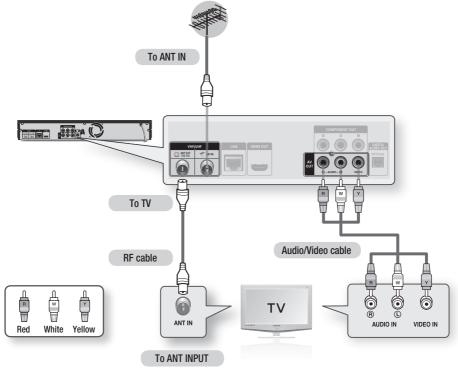
Brand	Code
SAMSUNG	TV POWER+01, +02, +03, +04, +05, +06, +07, +08, +09
AIWA	TV POWER+82
ANAM	TV POWER+10, +11, +12, +13, +14, +15, +16, +17, +18
BANG & OLUFSEN	TV POWER+57
BLAUPUNKT	TV POWER+71
BRANDT	TV POWER+73
BRIONVEGA	TV POWER+57
CGE	TV POWER+52
CONTINENTAL EDISON	TV POWER+75
DAEWOO	TV POWER+19, +20, +23, +24, +25, +26, +27, +28, +29, +30, +31, +32, +33, +34
EMERSON	TV POWER+64
FERGUSON	TV POWER+73
FINLUX	TV POWER+06, +49, +57
FORMENTI	TV POWER+57
FUJITSU	TV POWER+84
GRADIENTE	TV POWER+70
GRUNDIG	TV POWER+49, +52, +71
HITACHI	TV POWER+60, +72, +73, +75
IMPERIAL	TV POWER+52
JVC	TV POWER+61, +79
LG	TV POWER+06, +19, +20, +21, +22, +78
LOEWE	TV POWER+06, +69
LOEWE OPTA	TV POWER+06, +57
MAGNAVOX	TV POWER+40
METZ	TV POWER+57
MITSUBISHI	TV POWER+06, +48, +62, +65
MIVAR	TV POWER+52, +77
NEC	TV POWER+83

Brand	Code
NEWSAN	TV POWER+68
NOBLEX	TV POWER+66
NOKIA	TV POWER+74
NORDMENDE	TV POWER+72, +73, +75
PANASONIC	TV POWER+53, +54, +74, +75
PHILIPS	TV POWER+06, +55, +56, +57
PHONOLA	TV POWER+06, +56, +57
PIONEER	TV POWER+58, +59, +73, +74
RADIOLA	TV POWER+06, +56
RADIOMARELLI	TV POWER+57
RCA	TV POWER+45, +46
REX	TV POWER+74
SABA	TV POWER+57, +72, +73, +74, +75
SALORA	TV POWER+74
SANYO	TV POWER+41, +42, +43, +44, +48
SCHNEIDER	TV POWER+06
SELECO	TV POWER+74
SHARP	TV POWER+36, +37, +38, +39, +48
SIEMENS	TV POWER+71
SINGER	TV POWER+57
SINUDYNE	TV POWER+57
SONY	TV POWER+35, +48
TELEAVA	TV POWER+73
TELEFUNKEN	TV POWER+67, +73, +75, +76
THOMSON	TV POWER+72, +73, +75
THOMSON ASIA	TV POWER+80, +81
TOSHIBA	TV POWER+47, +48, +49, +50, +51, +52
WEGA	TV POWER+57
YOKO	TV POWER+06
ZENITH	TV POWER+63

Connections

1. Connect the RF cable as shown.

2. Using video/audio cables, connect the **VIDEO OUT (yellow) / AUDIO OUT (white and red)** terminals on the rear of the product to the **VIDEO IN (yellow) / AUDIO IN (white and red)** terminals of your TV.

3. Plug in the product and TV.

4. Turn on the product and TV.
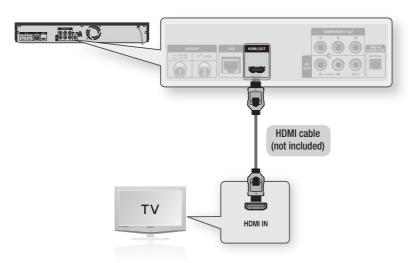
✎ NOTE

- The RF cable connection of this product sends only signals of TV. You must connect the Audio/Video cables to watch output from your product.

- Noise may be generated if the audio cable is placed too close to the power cable.

- If you want to connect to an AV receiver, please refer to the AV receiver connection pages. (See pages 28~29)

- The number and position of terminals may vary depending on your TV set. Please refer to the user manual of your TV.

- If there is only one audio input terminal on the TV, connect it to the **AUDIO OUT** (right/white) terminal of the product.

Case 1 : Connecting to a TV with an HDMI Cable - Best Quality (Recommended)

1. Using an HDMI cable, connect the **HDMI OUT** terminal on the rear of the product to the **HDMI IN** terminal of your TV.
2. Turn on the product and TV.
3. Press the input selector on your TV remote control until the HDMI signal from the product appears on your TV screen.
   • If you have set the remote control to operate your TV (See pages 22~23), press the **TV SOURCE** button on the remote control and select HDMI as the external source of the TV.

HDMI cable
(not included)

TV

HDMI IN
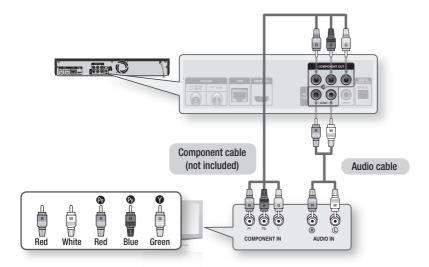
✎ **NOTE**

   ▪ An HDMI cable outputs digital video/audio, so you don't need to connect an audio cable.

   ▪ If the product is connected to your TV in the HDMI 720p, 1080i, or 1080p output mode, you must use a High speed (category 2) HDMI cable.

   ▪ HDMI outputs only a pure digital signal to the TV.
     If your TV does not support HDCP (High-bandwidth Digital Content Protection), random noise appears on the screen.

   ▪ Depending on your TV, certain HDMI output resolutions may not work. Please refer to the user manual of your TV.

   ▪ When you connect the product to the TV using the HDMI cable for the first time or to a new TV, the HDMI output resolution will be automatically set to the highest supported by the TV.

   ▪ You must have an HDMI connection to enjoy videos with 3D technology.

   ▪ A long HDMI cable may cause a screen noise. If this occurs, set Deep Colour to Off in the menu.

   ▪ If you use HDMI-to-DVI cable to connect to your display device, you must also connect the AV OUT or Digital Audio OUT to your display device or an audio system to hear audio.

English **25**

Connections

Case 2 : Connecting to a TV with a Component Cable - Better Quality

- You can connect the product to your TV using Component video cables.
- You will enjoy high quality images with accurate colour reproduction. Component video separates the picture element into black and white (Y), blue (PB) and red (PR) signals to present clear and clean images. (Audio signals are delivered through the audio output.)

1. Using a Component video cable, connect the **COMPONENT OUT** terminals on the rear of the product to the **COMPONENT IN** terminals of your TV.
2. Using audio cables, connect the **AUDIO OUT (white and red)** terminals on the rear of the product to the **AUDIO IN (white and red)** terminals of your TV.
3. Turn on the product and TV.
4. Press the input selector on your TV remote control until the "COMPONENT" signal from the product appears on the TV screen.
    - If you have set the remote control to operate your TV (See pages 22~23), press the **TV SOURCE** button on the remote control and select COMPONENT as the external source of the TV.

Component cable (not included)

Audio cable

Red White Red Blue Green

COMPONENT IN AUDIO IN
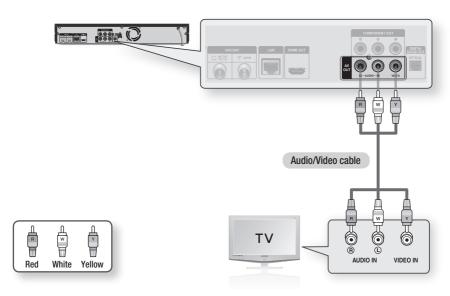
✎ **NOTE**

- Depending on the manufacturer, the component terminals on your TV may be marked "R-Y, B-Y, Y " or "Cr, Cb, Y" instead of "PB, PR, Y". The number and position of terminals may vary depending on the TV set. Please refer to the user manual of your TV.
- You can select from a variety of resolution settings as 1080i, 720p, 576p/480p or 576i/480i, depending on the contents type. (See pages 36~38)
- The actual resolution may differ from the setting in the setup menu if you have connected both Component and HDMI cables. The resolution may also be different depending on the contents type. (See pages 36~38)

Case 3 : Connecting to a TV with an Audio/Video cable - Good Quality

1. Using an Audio/Video cable, connect the **VIDEO OUT (yellow) / AUDIO OUT (white and red)** terminals on the rear of the product to the **VIDEO IN (yellow) / AUDIO IN (white and red)** terminals of your TV.

2. Turn on the product and TV.

3. Press the input selector on your TV remote control until the "VIDEO" signal from the product appears on the TV screen.
   - If you have set the product's remote control to operate your TV (See pages 22~23), press the **TV SOURCE** button on the remote control and select VIDEO as the external source of the TV.

Audio/Video cable

Red   White   Yellow

TV

AUDIO IN   VIDEO IN

✎ **NOTE**

- Noise may be generated if the audio cable is placed too close to the power cable.

- If you want to connect to an AV receiver, please refer to the AV receiver connection pages. (See pages 28~29)

- The number and position of input terminals may vary depending on your TV set. Please refer to the user manual of your TV.

! **CAUTION**

- Do not connect the product to your TV through a VCR. Video signals fed through VCRs may be affected by copyright protection systems and the picture will be distorted on the television.

Connections
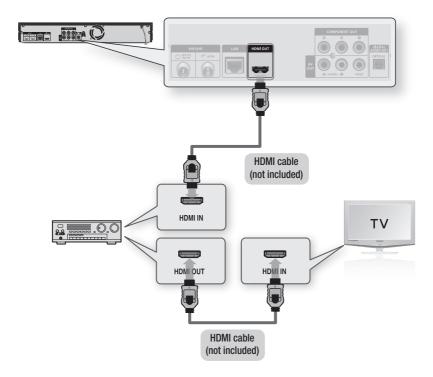
- Please turn the volume down when you turn on the AV receiver. A sudden loud sound may cause damage to the speakers and your ears.
- Set the audio output format according to the capabilities of your AV receiver. (See pages 39~42)
- The position of HDMI input terminals may vary depending on your AV receiver. Please refer to the user manual of your AV receiver.

Case 1 : Connecting to an Audio System (HDMI supported AV receiver) - Best Quality (Recommended)

1. Using an HDMI cable, connect the **HDMI OUT** terminal on the rear of the product to the **HDMI IN** terminal of your AV receiver.
2. Using an HDMI cable, connect the **HDMI OUT** terminal of the AV receiver to the **HDMI IN** terminal of your TV.
3. Turn on the product, TV, and AV receiver.
4. Press the input select button of the AV receiver and TV to select the external input to hear sound from the player. Refer to your AV receiver's user manual to set the AV receiver's audio input.

HDMI cable
(not included)

HDMI IN

HDMI OUT

HDMI IN

TV

HDMI cable
(not included)
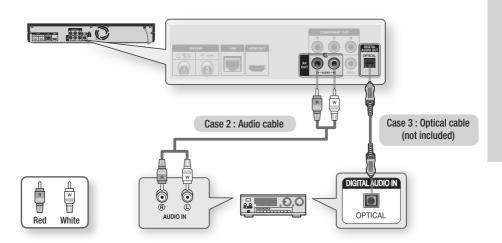
Case 2 : Connecting to an Audio System (Stereo Amplifier) - Good Quality

1. Using the audio cables, connect the **AUDIO OUT (white and red)** terminals on the rear of the product to the **AUDIO IN (white and red)** terminals of your Stereo Amplifier.
2. Using the video signal cable(s), connect the **HDMI**, **COMPONENT**, or **VIDEO OUT** terminals on the rear of the product to the **HDMI**, **COMPONENT**, or **VIDEO IN** terminal of your TV. (See pages 25~27)
3. Turn on the product, TV, and Stereo Amplifier.
4. Press the input select button of the Stereo Amplifier to select the external input and hear sound from the product. Refer to your Stereo Amplifier's user manual to set the Stereo Amplifier's audio input.
5. Press the input selector on your TV remote control to select the video source (HDMI, Component, or Video.)

Case 3 : Connecting to an Audio System (AV receiver with Dolby Digital or DTS decoder) - Better Quality

1. Using an optical cable, connect the **DIGITAL AUDIO OUT (OPTICAL)** terminal on the rear of the product to the **DIGITAL AUDIO IN (OPTICAL)** terminal of your AV receiver.
2. Using the video signal cable(s), connect the **HDMI**, **COMPONENT**, or **VIDEO OUT** terminals on the rear of the product to the **HDMI**, **COMPONENT**, or **VIDEO IN** terminal of your TV. (See pages 25~27)
3. Turn on the product, TV, and AV receiver.
4. Press the input select button of the AV receiver to select the external input in order to hear sound from the product. Refer to your AV receiver's user manual to set the AV receiver's audio input.
5. Press the input selector on your TV remote control to select the video source (HDMI, Component, or Video.)

Case 2 : Audio cable

Case 3 : Optical cable (not included)

Red White

AUDIO IN

DIGITAL AUDIO IN

OPTICAL

✎ NOTE
▪ If you use the Digital Audio connection described in Case 3, you will hear only front two speakers with Digital Output setting as PCM.

English **29**
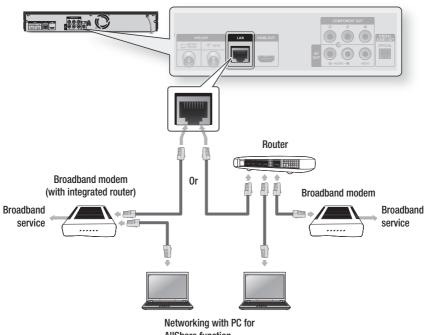
Connections

Connecting to the Network

This product lets you use network based services (See pages 73~82) such as Smart Hub and BD-LIVE, and software upgrades when it is connected to a network. We recommend using an AP (Access Point) or IP router for the connection. For more information on router connections, refer to the user manual of the router or contact the router manufacturer for technical assistance.

Cable Network

1. Using the Direct LAN Cable (UTP cable), connect the LAN terminal of the product to the LAN terminal of your modem or router.

2. To set the network options, see pages 44~48.

Router

Broadband modem (with integrated router)

Or

Broadband modem

Broadband service

Broadband service

Networking with PC for AllShare function
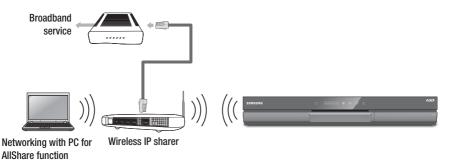
✎ **NOTE**

- Internet access to Samsung's software update server may not be allowed, depending on the router you use or your ISP's policy. For more information, contact your ISP (Internet Service Provider).

- For DSL users, please use a router to make a network connection.

- To use the AllShare function, you must connect your PC to your network as shown in the figure. The connection can be wired or wireless.

Wireless Network

Your product has built in Wi-Fi capability. You can connect to a network through a Wireless IP sharer (a router or modem).
To set the network options, see pages 44~48.

Broadband service

Networking with PC for AllShare function

Wireless IP sharer

✎ **NOTE**

 ▪ To use a wireless network, your product must be connected to a wireless IP sharer (router). If the wireless IP sharer supports DHCP, your product can use a DHCP or static IP address to connect to the wireless network.

 ▪ Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.

 ▪ If Pure High-throughput (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP, TKIP or TKIP-AES (WPS2Mixed) for your AP, this product will not support a connection in compliance with new Wi-Fi certification specifications.

 ▪ If your AP supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.

 ▪ You can setup a wireless network three ways:
   - Wireless (general)
   - Using WPS(PBC)
   - One Foot Connection

   Wireless (general) includes both Automatic and Manual setup procedures.

 ▪ Wireless LAN, by its nature, may cause interference, depending on the operating conditions (AP performance, distance, obstacles, interference by other radio devices, etc).

 ▪ Set the wireless IP sharer to Infrastructure mode. Ad-hoc mode is not supported.

 ▪ The product supports only the following wireless security key protocols :
   - WEP (OPEN/SHARED), WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES).

 ▪ To use the AllShare function, you must connect your PC to your network as shown in the figure.
   The connection can be wired or wireless.

Setup

Before Starting (Plug & Play)

1. Turn on your TV after connecting the product. When you connect the product to a TV for the first time, product turns on automatically and the Plug & Play screen appears.

```
                    Plug & Play
Select the OSD Language.

Menu Language        : English        ▶

                                  ⏎ Enter
```

2. Press the ►▲▼ buttons to select the desired language, and then press the **ENTER** button.

3. Press the ►▲▼ buttons to select the desired country, and then press the **ENTER** button.

4. Press the ►▲▼ buttons to select the desired Clock Mode.
   • If you select **Auto** : Press the **ENTER** button.
   • If you select **Manual** : Press the ▲▼◄ ► button to set the clock, then press the **ENTER** button.

```
                    Plug & Play
Set Auto Tuning search options.
      Air              ○
      Cable                 ●

                  Search
          A Previous  D Skip  ◆ Move  ⏎ Enter
```

5. Press the ▲▼ buttons to select the desired Antenna Source, then press the **ENTER** button.
   • If you select **Air** : Press the ▼ button to select the **Search**, then press the **ENTER** button.
   • If you select **Cable** : Press the ▼ button to select the **Next**, then press the **ENTER** button. Set the Search Mode option, then press the ▼ button to select the **Search** button.

6. Press the ►▲▼ buttons to select the desired Region, and then press the **ENTER** button.

7. Press the ◄► buttons to the select the **Network Settings** or **Watch TV**, then press the **ENTER** button.
   (For more information about Network settings, please refer to pages 44~48)

✎ **NOTE**
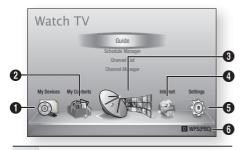
   ▪ When the product is connected to the TV for the first time, the product turns on automatically. This is normal operation.

   ▪ Enter the desired 4-digit password using the number buttons.
   * Default password is set to 0000.

Accessing the Settings Menu

1. Press the **MENU** button.
   The home menu will be displayed.

2. Press the ◄► buttons to select the desired home menu, and then press the **ENTER** button.

3. Press the ▲▼ buttons to select the desired submenu, and then press the **ENTER** button.

4. Press the ▲▼ buttons to select the desired item, and then press the **ENTER** button.

5. Press the **EXIT** button to exit the menu.

• **Home Menu**

Watch TV

Guide

Schedule Manager

Channel List

Channel Manager

My Devices   My Contents   Internet   Settings

❶   ❷   ❺

❸   ❹

D WPS(PBC)   ❻

❶	Selects My Devices.
❷	Selects My Contents.
❸	Selects Watch TV.
❹	Selects Internet.
❺	Selects Settings.
❻	Displays the buttons available.

✎ **NOTE**

▪ When the product is connected to a network, select **Smart Hub** from the Home menu.
Download the desired content from **Samsung Apps**. (See pages 80~81)

▪ The access steps may differ depending on the menu you selected.

▪ The OSD (On Screen Display) may change in this product after you upgrade the software version.

▪ If the product is left in the home menu more than 3 minutes without being used, DTV screen will appear.

▪ If the product is left in the other menu including settings more than 5 minutes without being used, a screen saver will appear on your TV.

Watch TV

1. Press the **MENU** button.
   The home menu will be displayed.

2. Press the ◄► buttons to select the **Watch TV**.

3. Press the ▲▼ buttons to select the desired submenu, then press the **ENTER** button.

4. Press the ▲▼ buttons to select the desired item, then press the **ENTER** button.

5. Press the **EXIT** button to exit the menu.

Channel List

You can see all channels searched.

1. Press the **CH LIST** button on the remote control.
   The Channel List will be displayed.

Channel List Screen

❶

Channel List

Air

808 BBC World

809 bid-up.tv

810 Boomerang

811 Cartoon Nwk

812 Class News

813 Coming Soon

814 Discovery

No Information

Air   **A** Antenna **C** Programme View ◄► Ch. Mode ▣ Watch ◇ Page   ❷

❶	Shows the stored channels.
❷	**Navigation Help** : Displays remote control buttons available. • **RED (A)** : Selects Air or Cable. • **YELLOW (C)** : Displays the Programme information. • **Ch. Mode** : Shows the channel mode according to channel type. (All, TV, Radio, Data/Other) • **Watch** : Displays the selected channel. • **Page** : Moves to next or previous page.

2. Press the ▲▼ buttons to select desired channel, press the **ENTER** button.
   The selected channel will be displayed.

✎ **NOTE**
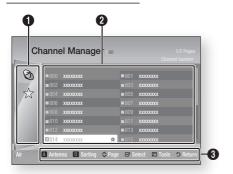
▪ By pressing the **INFO** button, you can watch or record the selected channel.

Setup

Channel Manager

You can manage the stored channels.

Channel Manager Screen

①	**Edited Channels** : Press the ◄ ▲ ▼ buttons to check edited channels. • **Channels** (⊘) : Shows the channel list according to channel type. (All, TV, Radio, Data/Other) • **Favourites** (☆) : Shows all favourite channel. (Favourites 1, Favourites 2, Favourites 3......)
②	Shows the stored channels.
③	**Navigation Help** : Displays remote control buttons available. • **RED (A)** : Selects Air or Cable. • **BLUE (D)** : Sorts the list ordered by channel number or channel name. • **Page** : Moves to next or previous page. • **Select** : Selects desired Channel. • **Tools** : Displays the Channel Manager option. • **Return** : Returns to previous menu.

Channel Status Display Icons

Icons	Operations
✓	A channel selected.
☆	A channel set as Favourites.
🔒	A locked channel.

Using the TOOLS button

Press the ▲▼ buttons to select the desired channel, then press the **TOOLS** button.

Watch

Select this to watch the channel.

Add to Favourites / Edit Favourites

Select this to add the desired favourite channel.

Lock / Unlock

Select this to lock the channel.

Edit Channel Number

Select this to edit the channel number.
If the Edit Channel Number option is not displayed in the Channel Manager, set it to Enable in the channels menu. (See page 43).
This menu will be displayed only when you set the antenna source type and country as below.

Antenna source	Country
Air	Ireland

Delete

Select this to delete the Channel.

Deselect All

Select this to deselect all channel.

Select All

Select this to select all channel.

✎ **NOTE**

■ For satellite broadcasting, editing the channel numbers may be possible depending on the specification.

Settings

1. Press the **MENU** button.
   The home menu will be displayed.

2. Press the ◄ ► buttons to select the **Settings**, then press the **ENTER** button.

3. Press the ▲ ▼ buttons to select the desired submenu, then press the **ENTER** button.
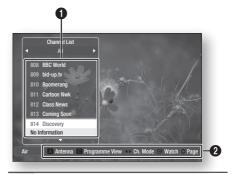
4. Press the ▲ ▼ buttons to select the desired item, then press the **ENTER** button.

5. Press the **EXIT** button to exit the menu.

Display

You can configure various display options such as the TV Aspect Ratio, Resolution, etc.

3D Settings

Select whether to play a Blu-ray Disc with 3D contents in 3D Mode.

3D Blu-ray Playback Mode

3D Blu-ray Discs are available in two formats : Blu-ray 3D and 3D only. You can choose to watch a Blu-ray 3D disc in 3D or 2D mode before playing the disc.

- **Auto** : Automatically detect if a connected TV has 3D capability and play a Blu-ray 3D disc in 3D or 2D accordingly or a 3D only disc in 3D if the TV supports 3D.
  3D only discs will not be played if your TV does not support 3D.
- **3D → 3D** : Play 3D only and Blu-ray 3D discs in 3D mode at all times.
- **3D → 2D** : Play Blu-ray 3D discs in 2D mode at all times. 3D only discs will not be played.

✎ **NOTE**

 ▪ Depending on the content and the position of the picture on your TV screen, you may see vertical black bars on the left side, right side, or both sides.

Screen Size

Lets you enter the actual screen size of your TV so that the product can adjust the image according to the screen size and display an optimal 3D image.
(For 3D displays bigger than 116 inches, simply setting it as 116 is a safe choice.)

❗ **CAUTION**

 ▪ If you want to enjoy 3D content, connect a 3D device (3D compliant AV receiver or TV) to the product's HDMI OUT port using a high-speed HDMI cable. Put on 3D glasses before playing the 3D content.

 ▪ The product outputs 3D signals only through HDMI cable connected to the HDMI OUT port.

 ▪ As the video resolution in 3D play mode is fixed according to the resolution of the original 3D video, you can not change the resolution to your preference.

 ▪ Some functions such as BD Wise, screen size adjustment, and resolution adjustment may not operate properly in 3D play mode.

 ▪ You must use a high-speed HDMI cable for proper output of the 3D signal.

 ▪ Stay at least three times the width of the screen from the TV when watching 3D images. For example, if you have a 46 inch screen, stay 138 inches (11.5 feet) from the screen.
   - Place the 3D video screen at eye level for the best 3D picture.

 ▪ When the product is connected to some 3D devices, the 3D effect may not function properly.

 ▪ "Blu-ray 3D" and "Blu-ray 3D" logo are trademarks of the Blu-ray Disc Association.

Setup

TV Aspect

Depending on the type of television you have, you may want to adjust the screen size setting.

- **16:9 Original** : Select when you connect the product to a 16:9 TV screen. The product will display all content in its original aspect ratio. Content formatted in 4:3 will be displayed with black bars on the left and right.
- **16:9 Full** : Select when you connect the product to a 16:9 TV screen. All content will fill the full screen. Content formatted in 4:3 will be stretched.
- **4:3 Letter Box** : Select when you connect the product to a 4:3 TV screen. The product will display all content in its original aspect ratio. Content formatted in 16:9 will be displayed with black bars on the top and bottom.
- **4:3 Pan-Scan** : Select when you connect the product to a 4:3 TV screen. 16:9 content will have the extreme left and right portions cut off.

✎ **NOTE**

- Depending on the disc type, some aspect ratios may not be available.
- If you select an aspect ratio and option which is different than the aspect ratio of your TV screen, then the picture might appear to be distorted.
- If you select the 16:9 Original, your TV may display 4:3 Pillarbox (black bars on sides of picture).

Smart Hub Screen Size

Set the Smart Hub Screen to the optimal size.

- **Size 1** : Smart Hub screen size will be smaller than default. You may see some black on sides of screen.
- **Size 2** : This is the default setting for Smart Hub. The product displays the normal Smart Hub screen size.
- **Size 3** : This will display a larger Smart Hub screen size. The image may be too large for your TV screen.

BD Wise (Samsung Products only)

BD Wise is Samsung's latest inter-connectivity feature.

When you connect a Samsung product and a Samsung TV with BD Wise to each other via HDMI, and BD Wise is on in both the product and TV, the product outputs video at the video resolution and frame rate of the Blu-ray Disc/DVDs.

- **Off** : The output resolution stays fixed at the resolution you set previously in the Resolution menu, regardless of the resolution of the disc. See Resolution below.
- **On** : The product outputs video at the original resolution and frame rate of the Blu-ray Disc/DVDs.

✎ **NOTE**

- When BD Wise is on, the Resolution setting automatically defaults to BD Wise and BD Wise appears in the Resolution menu.
- If the product is connected to a device that does not support BD Wise, you can not use the BD Wise function.
- For proper operation of BD Wise, set the BD Wise menu of both the product and the TV to **On**.

Resolution

Lets you set the output resolution of the Component and HDMI video signal to Auto, 1080p, 1080i, 720p, 576p/480p, or 576i/480i. The number indicates the number of lines of video per frame. The i and p indicate interlaced and progressive scan, respectively. The more lines, the higher the quality.

- **Auto** : Automatically sets the output resolution to the connected TV's maximum resolution.
- **BD Wise** : Automatically sets the resolution to the resolution of the Blu-ray Disc/DVDs if you have connected the product via HDMI to a TV with the BD Wise feature. (The BD Wise menu item appears only if BD Wise is set to **On**. See BD Wise above.)
- **1080p** : Outputs 1080 lines of progressive video.
- **1080i** : Outputs 1080 lines of interlaced video.
- **720p** : Outputs 720 lines of progressive video.
- **576p/480p** : Outputs 576/480 lines of progressive video.
- **576i/480i** : Outputs 576/480 lines of interlaced video.

Resolution according to the output mode

▪ Blu-ray Disc/E-contents/Digital Contents playback

Setup \ Output	HDMI / connected			HDMI / not connected		
	HDMI Mode		Component/ VIDEO Mode	Component Mode		VIDEO Mode
	Blu-ray Disc	E-contents/ Digital contents		Blu-ray Disc	E-contents/ Digital contents	
BD Wise	Resolution of Blu-ray Disc	1080p	576i/480i	-	-	-
Auto	Max. Resolution of TV input	Max. Resolution of TV input	576i/480i	-	-	-
1080p	1080p	1080p	576i/480i	-	-	-
Movie Frame : Auto (24Fs)	1080p@24F	1080p@24F	480i	-	-	-
1080i	1080i	1080i	576i/480i	576i/480i	576p/480p	576i/480i
720p	720p	720p	576i/480i	576i/480i	576p/480p	576i/480i
576p/480p	576p/480p	576p/480p	576i/480i	576i/480i	576p/480p	576i/480i
576i/480i	-	-	-	576i/480i	576i/480i	576i/480i

▪ DVD playback

Setup \ Output	HDMI / connected		HDMI / not connected	
	HDMI Mode	Component/VIDEO Mode	Component Mode	VIDEO Mode
BD Wise	576i/480i	576i/480i	-	-
Auto	Max. Resolution of TV input	576i/480i	-	-
1080p	1080p	576i/480i	-	-
1080i	1080i	576i/480i	576p/480p	576i/480i
720p	720p	576i/480i	576p/480p	576i/480i
576p/480p	576p/480p	576i/480i	576p/480p	576i/480i
576i/480i	-	-	576i/480i	576i/480i

Setup

▪ **DTV View**

Resolution		HDMI connected		HDMI not connected	
	Output	HDMI Mode	Component/ VIDEO MODE	Component Mode	VIDEO Mode
BD Wise		1080p	576i/480i	-	-
Auto	DTV Smart Resolution "Auto"	Resolution of Broadcast stream	576i/480i	-	-
	DTV Smart Resolution "Off"	Max Resolution of TV input			
1080p		1080p	576i/480i	-	-
1080i		1080i	576i/480i	576p/480p	576i/480i
720p		720p	576i/480i	576p/480p	576i/480i
576p/480p		576p/480p	576i/480i	576p/480p	576i/480i
576i/480i		-	-	576i/480i	576i/480i

✎ **NOTE**

▪ DTV smart resolution is activated only when resolution option is set to **Auto**.

▪ If the TV you connected to the product does not support Movie Frame or the resolution you selected, the message "If no pictures are shown after selecting 'Yes', please wait for 15 seconds to return to the previous resolution. Do you want to change the resolution?" appears.
If you select **Yes,** the TV's screen will go blank for 15 seconds, and then the resolution will revert to the previous resolution automatically.

▪ If the screen stays blank after you have changed the resolution, remove all discs, and then press and hold the **STOP** (▣) button on the front of the product for more than 5 seconds. All settings are restored to the factory default. Follow the steps on the previous page to access each mode and select the Display Setup that your TV will support.

▪ When the factory default settings are restored, all stored user BD data is deleted.

▪ The Blu-ray Disc must have the 24 frame feature for the product to use the Movie Frame (24Fs) mode.

▪ If both HDMI and Component jacks are connected and you are currently viewing Component output, the resolution is fixed to 576i/480i.

▪ For Copy protected DivX content, the ouput resolution of component Video is forced to 576i/480i.

DTV Smart Resolution

Use this function to automatically optimised screen resolution for digital broadcasts.
- **Auto** : Screen resolution is automatically optimised for digital broadcast.
- **Off** : Turn off DTV Smart Resolution.

✎ **NOTE**

▪ When you change your TV channel with this function set to **Auto**, according your TV, the display time of next channels may take longer than the function set to **Off**.

HDMI Colour Format

Lets you set the colour space format for HDMI output to match the capabilities of the connected device (TV, monitor, etc).
- **Auto** : Automatically sets the product to the optimum format supported by your device.
- **YCbCr (4:4:4)** : If your TV supports the YCbCr colour space via HDMI, select this to output the normal YCbCr colour gamut.
- **RGB (Standard)** : Select this to output the normal RGB colour gamut.

- **RGB (Enhanced)** : If you have connected the product to a DVI display device such as a monitor, select this to output the enhanced RGB colour gamut.

Movie Frame (24Fs)

Setting the Movie Frame (24Fs) feature to **Auto** allows you to adjust the product's HDMI output to 24 frames per second for improved picture quality. You can enjoy the Movie Frame (24Fs) feature only on a TV supporting this frame rate. You can select Movie Frame only when the product is in the HDMI 1080i or 1080p output resolution modes.

- **Auto** : Movie Frame (24Fs) functions work.
- **Off** : Movie Frame (24Fs) functions are off.

HDMI Deep Color

Lets you output video from the HDMI OUT jack with Deep Colour. Deep Colour provides more accurate colour reproduction with greater colour depth.

- **Auto** : The product outputs video with Deep Colour to a connected TV which supports HDMI Deep Colour.
- **Off** : The picture is output without Deep Colour.

Still Mode

Lets you set the type of picture the product displays when you pause DVD playback.

- **Auto** : Automatically shows the best still picture depending on the content.
- **Frame** : Select when pausing a scene with a little action.
- **Field** : Select when pausing a scene with a lot of action.

Progressive Mode

Lets you improve picture quality when viewing DVDs.

- **Auto** : Select to have the product automatically select the best picture quality for the DVD you're watching.
- **Video** : Select for the best picture quality from concert or TV show DVDs.

Audio

Digital Output

You set the Digital Output to match the capabilities of the AV receiver you've connected to the product :

- **PCM** : Choose if you have connected an HDMI supported AV receiver.
- **Bitstream (Unprocessed)** : Select if you have connected an HDMI supported AV receiver with Dolby TrueHD and DTS-HD Master Audio decoding capabilities.
- **Bitstream (Re-encoded DTS)** : Choose if you have connected an AV receiver using a Digital Optical input that can decode DTS.
- **Bitstream (Re-encoded Dolby D)** : Select if you don't have an HDMI supported AV receiver, but have an AV receiver with Dolby Digital decoding capabilities.

Blu-ray Discs may include three audio streams :

- Main Feature Audio : The audio soundtrack of the main feature.
- BONUSVIEW audio : An additional soundtrack such as the director or actor's commentary.
- Navigation Sound Effects : When you choose some menu navigation, Navigation Sound Effects may sound. Navigation Sound Effects are different on each Blu-ray Disc.

✎ **NOTE**

- Be sure to select the correct Digital Output or you will hear no sound or a loud noise.
- If the HDMI device (AV receiver, TV) is not compatible with compressed formats (Dolby digital, DTS), the audio signal outputs as PCM.
- Regular DVDs do not have BONUSVIEW audio and Navigation Sound Effects.
- Some Blu-ray Discs do not have BONUSVIEW audio and Navigation Sound Effects.
- This Digital Output setup does not effect the analogue (L/R) audio or HDMI audio output to your TV. It effects the optical and HDMI audio output when connected to an AV receiver.

Setup

Digital Output Selection

Setup		PCM		Bitstream (Unprocessed)		Bitstream (Re-encoded DTS)	Bitstream (Re-encoded Dolby D)
Connection		HDMI supported AV receiver	Optical	HDMI supported AV receiver	Optical	HDMI supported AV receiver or Optical	HDMI supported AV receiver or Optical
Audio Stream on Blu-ray Disc	PCM	Up to 7.1ch	PCM 2ch	PCM	PCM 2ch	Re-encoded DTS	Re-encoded Dolby Digital *
	Dolby Digital	Up to 7.1ch	PCM 2ch	Dolby Digital	Dolby Digital	Re-encoded DTS	Re-encoded Dolby Digital *
	Dolby Digital Plus	Up to 7.1ch	PCM 2ch	Dolby Digital Plus	Dolby Digital	Re-encoded DTS	Re-encoded Dolby Digital *
	Dolby TrueHD	Up to 7.1ch	PCM 2ch	Dolby TrueHD	Dolby Digital	Re-encoded DTS	Re-encoded Dolby Digital *
	DTS	Up to 6.1ch	PCM 2ch	DTS	DTS	Re-encoded DTS	Re-encoded Dolby Digital *
	DTS-HD High Resolution Audio	Up to 7.1ch	PCM 2ch	DTS-HD High Resolution Audio	DTS	Re-encoded DTS	Re-encoded Dolby Digital *
	DTS-HD Master Audio	Up to 7.1ch	PCM 2ch	DTS-HD Master Audio	DTS	Re-encoded DTS	Re-encoded Dolby Digital *
Audio Stream on DVD	PCM	PCM 2ch	PCM 2ch	PCM 2ch	PCM 2ch	PCM 2ch	PCM 2ch
	Dolby Digital	Up to 5.1ch	PCM 2ch	Dolby Digital	Dolby Digital	Dolby Digital	Dolby Digital
	DTS	Up to 6.1ch	PCM 2ch	DTS	DTS	DTS	DTS
Audio Stream of Broadcast	Dolby Digital	Up to 5.1ch	PCM 2ch	Dolby Digital	Dolby Digital	Re-encoded DTS	Re-encoded Dolby Digital *
	Dolby Digital Plus	Up to 5.1ch	PCM 2ch	Dolby Digital Plus***	Dolby Digital	Re-encoded DTS	Re-encoded Dolby Digital *
	MPEG1	Up to 5.1ch	PCM 2ch	PCM (up to 5.1ch)	PCM 2ch	Re-encoded DTS	Re-encoded Dolby Digital *
	HE-AAC	Up to 5.1ch	PCM 2ch	Re-encoded Dolby Digital** (for Multichannel Programme)	Re-encoded Dolby Digital** (for Multichannel Programme)	Re-encoded DTS	Re-encoded Dolby Digital *

Definition for Blu-ray Disc	Any	Decodes the main feature audio and BONUSVIEW audio stream together into PCM audio and adds Navigation Sound Effects.	Outputs only the main feature audio stream so that your AV receiver can decode the audio bitstream. You will not hear BONUSVIEW audio or Navigation Sound Effects.	Decodes the main feature audio and BONUSVIEW audio stream together into PCM audio and adds Navigation Sound Effects, then re-encodes the PCM audio into DTS bitstream.	Decodes the main feature audio and BONUSVIEW audio stream together into PCM audio and adds Navigation Sound Effects, then re-encodes the PCM audio into Dolby digital bitstream.

* If the Source Stream is 2ch, "Re-encoded Dolby D" Setting are not applied. Output will be PCM 2ch.

** If HE-AAC Source Stream is 2ch or 1ch, Output shall be 2ch PCM.
For Dolby Digital Plus stream on Internet Content, PCM Output via HDMI supported up to 5.1ch.

*** If the Audio Description is set to **On** and the Number of Audio Channel is more than 2, audio output will be changed Dolby Digital even if the original broadcast stream is Dolby Digital Plus.
But, if the Number of Audio Channel is 2 (stereo) or 1 and Audio Description is set to **On**, Output format will be PCM.

PCM Downsampling

Lets you set 48kHz and 96kHz PCM down-sampling on or off.
- **Off** : Select when the AV receiver connected to the product is 96kHz compatible.
- **On** : Select when the AV receiver connected to the product is not 96kHz compatible. 96kHz signals will be down converted to 48kHz.

✎ NOTE
- Even when PCM Downsampling is set to **Off**, some discs will only output downsampled audio through the optical digital outputs.

HDMI
- If your TV is not compatible with compressed multi-channel formats (Dolby Digital, DTS), the product may output PCM 2ch downmixed audio even though you set the digital output as Bitstream (unprocessed/Re-encoded DTS/Re-encoded Dolby D) on your setup menu.
- If your TV is not compatible with PCM sampling rates over 48kHz, the product may output 48kHz downsampled PCM audio even though you set PCM Downsampling to **Off**.

Dynamic Range Control

You can listen at low volumes, but still hear dialog clearly.
This is only active if your product detects a Dolby Digital, Dolby Digital Plus or Dolby TrueHD signal.
- **Auto** : The Dynamic Range Control will be set automatically based on the information provided by the Dolby TrueHD Soundtrack.
- **Off** : You can enjoy the movie with the standard Dynamic Range.
- **On** : When Movie soundtracks are played at low volume or through smaller speakers, the system can apply appropriate compression to make low-level content more intelligible and prevent dramatic passages from getting too loud.

Downmixing Mode

Lets you select how the product will downmix multi-channel audio into fewer channels.
- **Normal Stereo** : Downmixes the multi-channel audio into two channel stereo. Choose when connected to equipment that does not support virtual surround functions such as Dolby Pro Logic.
- **Surround Compatible** : Downmixes multi-channel audio into surround compatible stereo. Choose when connected to equipment that supports virtual surround functions such as Dolby Pro Logic.

Setup

DTS Neo:6 Mode

You can enjoy multi-channel sound from an Audio CD (CD-DA).

- **Off** : Outputs a 2-channel audio signal through the front speakers only.
- **Cinema** : Select to play 2-channel movie sound over multi-channels.
- **Music** : Select to play 2-channel music over multi-channels.

✎ **NOTE**

- If you are using an HDMI supported AV receiver, this option is available when you set Digital Output setup as PCM.

Audio Sync

In some cases when the product is connected to a digital TV, the audio signal may not synchronize with the video signal. If this occurs, adjust the audio delay time to match the video signal.

- You can set the audio delay time between 0 msec and 200 msec.
  Adjust it to the optimal setting.

✎ **NOTE**

- The audio delay time you specify may not be exact depending on the played content.

Channel

You can configure your TV channels with features such as country and auto tune.

Antenna

Selects an appropriate type of antenna for digital broadcasts.
Before your product can begin memorizing the available channels, you must specify the type of signal source that is connected to the this product.

- **Air** : Select Air for receiving digital broadcasts.
- **Cable** : Select Cable for receiving digital broadcasts.

Country

Select this to change the country.
Enter the desired 4-digit password using the number buttons.

1. Press the ►▲▼ buttons to select the desired country, then press the **ENTER** button.
2. Press the **RETURN** button.

✎ **NOTE**

- Enter the desired 4-digit password using the number buttons.
  * Default password is set to 0000.

Auto Tuning

Scans for all channels with active broadcast stations and stores them.
Scans for a channel automatically and stores in the product.
Automatically allocated programme numbers may not correspond to actual or desired programme numbers.
If a channel is locked using the Child Lock function, the PIN input window appears.

- **Air** : Press the ▼ button to select the **Search**, then press the **ENTER** button.
- **Cable** : Press the ▼ button to select the **Next**, then press the **ENTER** button.
  Set the Search Mode option, then press the ▼ button to select the **Search** button.
  - Search Mode (Full / Network / Quick) : Scans for all channels with active broadcast stations and stores them in the product.

NOTE

■ If you select Quick, you can set up the Network, Network ID, Frequency, Modulation and Symbol Rate manually by pressing the button on the remote control.

- Network (Auto / Manual) : Selects the Network ID setting mode either Auto or Manual.
- Network ID : When Network is Manual, you can set up Network ID using the numeric buttons.
- Frequency : Displays the frequency for the channel. (differs in each country)
- Modulation : Displays available modulation values.
- Symbol Rate : Displays available symbol rates.

Manual Tuning

Scans for a channel manually and stores in the product.
- When scanning has finished, channels are updated in the channel list.

NOTE

■ When selecting Antenna → Air : Channel, Frequency, Bandwidth.
When selecting Antenna → Cable : Frequency, Modulation, Symbol Rate

Cable Search Option

Sets additional search options such as the frequency and symbol rate for a cable network search.
- Start Frequency/Stop Frequency : Set the start or stop frequency (differs in each country).
- Symbol Rate : Displays available symbol rates.
- Modulation : Displays available modulation values.

Transfer Channel List

This function can import or export the channel map. You should connect a USB storage to use this function. Enter your 4 digit PIN number when the PIN input screen appears.

• **Import from USB** : Import channel list from USB.
• **Export to USB** : Export channel list to USB. This function is available when USB is connected.

Edit Channel Number

Select this to edit the channel number in the channel manager. (See page 34)
• **Disable** : Select disable if you do not want to edit channel number.
• **Enable** : Select enable if you want to edit channel number.

This menu will be displayed only when you set the antenna source type and country as below.

Antenna source	Country
Air	Ireland

Digital Text

If the programme broadcasts with digital text, this feature is enabled.
• **Disable** : Select disable if you do not want to use digital text.
• **Enable** : Select enable if you want to use digital text.

Common Interface

Show the CI Menu Information screen.
• **CI Menu** : This enables the user to select from the CAM provided menu. Select the CI Menu based on the menu PC Card.
• **Application Info.** : View information on the CAM(Conditional Access Module) inserted into the CI slot and on the "CI CAM with CI or CI+ CARD" which is inserted into the CAM. You can install the CAM anytime whether the product is on or off.

1. Purchase a CI CAM at your nearest dealer or by phone.
2. Firmly insert the "CI CAM with CI or CI+ CARD" into the CAM in the direction of the arrow.

Setup

3. Insert the CAM with the "CI CAM with CI or CI+ CARD" into the common interface slot, in the direction of the arrow so that it aligns parallel with the slot.

4. Check if you can see a picture on a scrambled signal channel.

✎ NOTE

▪ This Device is work with CI and CI+ CAM. But in case of some local DVB-T association, this device doesn't have perfect compatibility with all kinds of CAM.
If there is a problem, pull the CAM CARD out of the Set and insert it into the slot again.

Network

Before you begin, contact your ISP to find out if your IP address is static or dynamic. If it is dynamic, and you are using a wired or wireless connection, we recommend using the Auto procedures. If you are using a wireless connection and your router has the capability, you can use WPS(PBC) or One Foot Connection.

If your IP address is static, you must use the manual set up procedure for both wired and wireless connections.
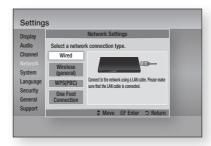
Network Settings

To begin setting up the network connection for your product, follow these steps:

1. In the Home menu, press the ◄► buttons to select **Settings**, and then press the **ENTER** button.

2. Press the ▲▼ buttons to select **Network**, and then press the **ENTER** button.

3. Press the ▲▼ buttons to select **Network Settings**, and then press the **ENTER** button.

4. Press the ▲▼ buttons to select **Wired**, **Wireless (general)**, **WPS(PBC)** or **One Foot Connection**, and then press the **ENTER** button.

5. If you have a wired network, go to Wired Network below. If you have a wireless network, go to Wireless Network on pages 45~48.

Wired Network

▪ Setting Up a Wired Connection - Auto

1. Press the ▲▼ buttons to select **Wired**.

2. Press the **ENTER** button.
The Network Status screen appears. The product connects to the network after the network connection is verified.

▪ Setting Up a Wired Connection - Manual

If you have a static IP address or the Auto Setting does not work, you'll need to set the Network Settings values manually.

To view your Network Settings values on most Windows computers, follow these steps:

Windows XP

1. Right click the Network icon on the bottom right of the Windows desktop.

2. In the pop-up menu, click Status.

3. On the dialog that appears, click the Support tab.

4. On the Support tab, click the Details button. The Network settings are displayed.

Windows 7

1. Click the Network icon on the bottom right of the Windows desktop.

2. In the pop-up menu, click Network and Sharing Centre.

3. On the dialog that appears, click the Local Area Connection or Wireless Network Connection depending on your network connection.

4. On the Support tab, click the Details button. The Network settings are displayed.

✎ **NOTE**

▪ Depending on your Windows version, the information may differ.

To enter the Network settings into your product, follow these steps:

1. Press the ▲▼ buttons to select **Wired**, and then press the **ENTER** button.

2. Press the ◄► buttons to select **IP Settings**, and then press the **ENTER** button.

3. On the Network Status screen, select Cancel, and then press Enter.

Settings				
Display	IP Settings			
Audio				
Channel	IP Mode	Manual ▸		
Network	IP Address	0 0 0 0		
System	Subnet Mask	0 0 0 0		
Language	Gateway	0 0 0 0		
Security	DNS Mode	Manual		
General	DNS Server	0 0 0 0		
Support	OK			
	⬍ Move ↵ Enter ↺ Return			

4. Press the **ENTER** button to select **IP Mode**.

5. Press the ▲▼ buttons to select **Manual**, and then press the **ENTER** button.

6. Press the ▼ button to go to the first entry field (IP Address).

7. Use the number buttons on your remote to enter numbers.

8. When done with each field, press the ► button to move successively to the next field. You can also use the other arrow buttons to move up, down, and back.

9. Enter the **IP Address**, **Subnet Mask**, and **Gateway** values.

10. Press the ▼ button to go to **DNS Mode**.

11. Press the ▼ button to go to the first DNS entry field. Enter the numbers as above.

12. Press the **ENTER** button to select **OK**. The Network Status screen appears. The product connects to the network after the network connection is verified.

Wireless Network

You can setup a wireless network three ways:
• Wireless (general)
• Using WPS(PBC)
• One Foot Connection
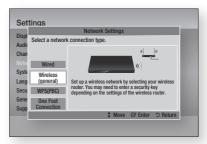
Wireless (general) includes both Automatic and Manual setup procedures.

▪ Setting Up the Wireless Network Connection - Auto

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security Key. The Security Key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network. If you use this method of setting up the network connection, and have a Security Key for your wireless network, you will have to enter the Pass Phrase during the Auto setup process.
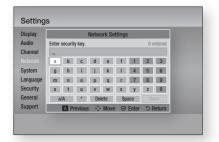
1. Press the ▲▼ buttons to select **Wireless (general)**.

Settings		
Display	Network Settings	
Audio	Select a network connection type.	
Channel		
Network		
System	**Wired**	
Language	**Wireless (general)**	Set up a wireless network by selecting your wireless router. You may need to enter a security key depending on the settings of the wireless router.
Security	**WPS(PBC)**	
General	**One Foot Connection**	
Support		
	⬍ Move ↵ Enter ↺ Return	

2. Press the **ENTER** button. When done, it displays a list of the available networks.

3. Press the ▲▼ buttons to select the desired network, and then press the **ENTER** button. The Security screen appears.

Setup

4. On the Security screen, enter your network's Pass Phrase. Enter numbers directly using your remote control.

To select a letter, press the ▲▼◄► buttons to move the cursor, then press the **ENTER** button.

Settings	
Display	**Network Settings**
Audio	Enter security key. 0 entered
Channel	–
Network	a b c d e f 1 2 3
System	g h i j k l 4 5 6
Language	m n o p q r 7 8 9
Security	s t u v w x y z 0
General	a/A * Delete Space Done
Support	A Previous ◆ Move ◄ Enter ↻ Return

✎ **NOTE**

- You should be able to find the Pass Phrase on one of the set up screens you used to set up your router or modem.

5. When done, press the **GREEN (B)** button on your remote, or press the ▲▼◄► buttons to move the cursor to **Done**, and then press the **ENTER** button.

The Network Status screen appears. The product connects to the network after the network connection is verified.

- Setting Up the Wireless Network Connection - Manual

If the Auto Setting does not work, you need to enter the Network setting values manually.

To view your Network Settings values on most Windows computers, follow these steps:

Windows XP

1. Right click the Network icon on the bottom right of the Windows desktop.

2. In the pop-up menu, click Status.

3. On the dialog that appears, click the Support tab.

4. On the Support tab, click the Details button. The Network settings are displayed.
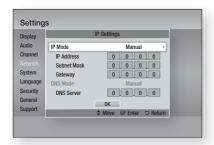
Windows 7

1. Click the Network icon on the bottom right of the Windows desktop.

2. In the pop-up menu, click Network and Sharing Centre.

3. On the dialog that appears, click the Local Area Connection or Wireless Network Connection depending on your network connection.

4. On the Support tab, click the Details button. The Network settings are displayed.

✎ **NOTE**

- Depending on your Windows version, the information may differ.

To enter the Network settings into your product, follow these steps:

1. Follow Steps 1 through 4 in the 'Setting Up the Wireless Network Connection - Auto' procedure.

2. When done, press the **GREEN (B)** button on your remote, or press the ▲▼◄► buttons to move the cursor to **Done**, and then press the **ENTER** button. The Network Status screen appears.

3. On the Network Status screen, select Cancel, and then press Enter.

4. Press the ◄► buttons to select **IP Settings**, and then press the **ENTER** button.

Settings	
Display	**IP Settings**
Audio	IP Mode Manual ▸
Channel	IP Address 0 0 0 0
Network	Subnet Mask 0 0 0 0
System	Gateway 0 0 0 0
Language	DNS Mode Manual
Security	DNS Server 0 0 0 0
General	OK
Support	◆ Move ◄ Enter ↻ Return

5. Press the **ENTER** button to select **IP Mode**.

6. Press the ▲▼ buttons to select **Manual**, and then press the **ENTER** button.

7. Press the ▼ button to go to the first entry field (IP Address).

8. Use the number buttons to enter numbers.
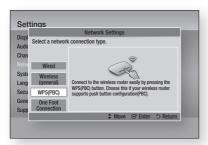
9. When done with each field, press the ▶ button to move successively to the next field. You can also use the other arrow buttons to move up, down, and back.

10. Enter the **IP Address**, **Subnet Mask**, and **Gateway** values.

11. Press the ▼ to go to **DNS Mode**.

12. Press the ▼ button to go to the first DNS entry field. Enter the numbers as above.

13. Press the **OK** button.

14. The Network Status screen appears. The product connects to the network after the network connection is verified.

WPS(PBC)

The easiest way to set up the wireless network connection is using the WPS(PBC) function or the One Foot Connection function.

If your wireless router has a **WPS(PBC)** button, follow these steps:

1. Press the ▲▼ buttons to select **WPS(PBC)**.
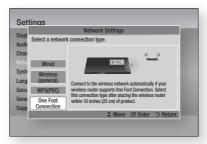
2. Press the **ENTER** button.

3. Press the **WPS(PBC)** button on your router within two minutes. Your product automatically acquires all the network settings values it needs and connects to your network.

4. The Network Status screen appears. The player connects to the network after the network connection is verified.

One Foot Connection

You can set up the wireless connection automatically if you have a Samsung Wireless Router which supports One Foot Connection. To connect using the One Foot Connection function, follow these steps:
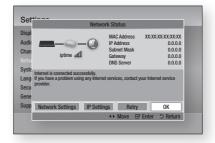
1. Press the ▲▼ buttons to select **One Foot Connection**.

2. Press the **ENTER** button.

3. Place the Samsung Wireless Router within 25 cm (10 inches) of your product to connect.

4. Wait until the connection is automatically established.

Network Status

Check whether a connection to the network and the Internet have been established.

SWL(Samsung Wireless Link)

Mobile devices with Samsung Wireless Link capability can be connected to your network via this product.

- **Off** : Set Samsung Wireless Link off.
- **On** : Set Samsung Wireless Link On.

1. If you select **On**, press the ▲▼ buttons to select the **Connect SWL**, then press the **ENTER** button. Please follow the instruction on TV Screen.

✎ **NOTE**

▪ If this product turned off, the network connection using SWL will be disconnected.

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Setup

AllShare Server Management

Manage content sharing function. You can share media contents (videos, music, photos) via the AllShare function.

- **AllShare Server** : Set the server function.
- **Change Server Name** : Set the server name. Enables you to identify the server on a network.
- **Device Access Control** : Configures access authorization for individual device.

BD-Live Internet Connection

Set to allow or prohibit an Internet connection when you use the BD-LIVE service.

- **Allow (All)** : The Internet connection is allowed for all BD-LIVE contents.
- **Allow (Valid Only)** : The Internet connection is allowed only for BD-LIVE contents containing a valid certificate.
- **Prohibit** : No Internet connection is allowed for any BD-LIVE content.

✎ **NOTE**

- **What is a valid certificate?**
  When the product uses BD-LIVE to send the disc data and a request to the server to certify the disc, the server uses the transmitted data to check if the disc is valid and sends the certificate back to the product.

- The Internet connection may be restricted while you are using BD-LIVE contents.

System

Plug & Play

By using Plug & Play, you can set country, clock mode and Network Settings, etc.
For more information about the Plug & Play function, refer to the Plug & Play section of this user manual. (See pages 32~53)

✎ **NOTE**

- If you want to change plug & play options, you should enter the password.

Clock

Set time-related functions.

- **Clock Mode** : You can set it to **Auto** or **Manual**.
- **Clock Set** : If Clock Mode set to **Manual**, the this menu will be activated.

✎ **NOTE**

- If Timer Viewing and Timer Recording is set using GUIDE, Channel List, or Info menu, It will work based on the time information of the TV programme.
  If you set the Clock Mode to Manual and change time manually, Timer Viewing and Timer Recording function can be limited or work abnormally.

Anynet+(HDMI-CEC)

Anynet+ is a convenient function that offers linked operations with other Samsung products that have the Anynet+ feature.
To operate this function, connect this product to a Samsung TV with an HDMI cable.
With Anynet+ on, you can operate this product using a Samsung TV remote control and start disc playback simply by pressing the **PLAY** (▶) button on the TV's remote control.
For more information, please see the TV user manual.

- **Off** : Anynet+ functions will not work.
- **On** : Anynet+ functions will work.

✎ **NOTE**

- This function is not available if the HDMI cable does not support CEC.

- If your Samsung TV has an Anynet+ logo, then it supports the Anynet+ function.

- Depending on your TV, certain HDMI output resolutions may not work.
  Please refer to the user manual of your TV.

- If you press the Play button of TV when product is in DTV mode, Time Shift function will start.

Device Management

Manage internal HDD and external devices.
You can manage options such as device format and default recording device.

- **Device Format** : Format the device.
- **Checking Device** : Checks for errors on the device.
- **Device Performance Test** : Test the recording performance of the device.
- **Default Recording Device** : Select default recording device.

By HDD

1. Select the **Default Recording Device**, and then press the **ENTER** button.
2. Select recording device to HDD. (You can also check available storage in this menu.)

Settings

Display
Audio
Channel
Network
System
Language
Security
General
Support

Plug & Play
Default Recording Device

HDD   XXX.XX GB/XXX.XX GB
Select default device for recording.
✓ HDD   Internal storage
abc   Recordable

♦ Move   ↵ Enter   ↺ Return

By External Device

1. In Stop mode, connect the external storage device to the USB port on the front panel of the product.
2. Select the **Device Format**, and then press the **ENTER** button. Device format will be started.
3. Select the **Default Recording Device**, and then press the **ENTER** button.

Settings

Display
Audio
Channel
Network
System
Language
Security
General
Support

Plug & Play
Default Recording Device

HDD   XXX.XX GB/XXX.XX GB
Select default device for recording.
HDD   Internal storage
✓ abc   Recordable

♦ Move   ↵ Enter   ↺ Return

4. Select recording device to connected external device. (You can also check available storage in this menu.)

✎ **NOTE**

- It may take several times to detect a connected external device.
- The total size of device must have at least 375MB of free space to use the time shift function.
- In case of USD HDD is used for recording, Don't plug-out USB HDD Device during format.
- Recording Function is supported only for DTV.
- Recording Function is not supported for data channel.
- Maximum length of Recording or Time shift is affected by available size of storage device and the Video resolution of TV Programme.

BD Data Management

Enables you to manage the downloaded contents from a Blu-ray Disc that supports the BD-LIVE service.
You can check the device information including the storage size, delete the BD data.

Setup

- **Current Device** : Displays the current device.
- **Total Size** : Displays the total size of the device. (Storage)
- **Available Size** : Displays the available size of the device. (Storage)
- **Delete BD Data** : Press this to delete the BD data.

✎ **NOTE**

■ The total size of BD Data Management may differ, depending on the conditions.

DivX® Video On Demand

View DivX® VOD Registration Codes to purchase and play DivX® VOD contents.

Reset

All settings will revert to the default except for the network and Smart Hub settings.

Language

You can select the language you prefer for the Home menu, disc menu, etc.

- **On-Screen Menu** : Select the language for the on-screen displays.
- **BD/DVD Disc Menu** : Select the language for the disc menu displays.
- **BD/DVD Audio** : Select the language for disc audio language.
- **BD/DVD Subtitle** : Select the language for disc subtitle language.
- **DTV Primary Audio** : Select the language for DTV primary audio language.
- **DTV Secondary Audio** : Select the language for DTV secondary audio language.
- **DTV Primary Subtitle** : Select the language for DTV primary subtitle language.
- **DTV Secondary Subtitle** : Select the language for DTV secondary subtitle language.
- **DTV Primary Teletext** : Select the language for DTV primary teletext language.
- **DTV Secondary Teletext** : Select the language for DTV secondary teletext language.

✎ **NOTE**

■ The selected language will only appear if it is supported on the disc or broadcast channel.

Security

This function works in conjunction with Blu-ray Disc/DVDs that have been assigned an age rating or numeric rating that indicates the maturity level of the content. These numbers help you control the types of Blu-ray Disc/DVDs that your family can watch.

When you access this function, the security screen appears. Enter the your Security password. (The default password is 0000.)

✎ **NOTE**

■ Enter the desired 4-digit password using the number buttons.
   * Default password is set to 0000.

DTV Channel Lock

You can lock some channels using the Channel Lock function so that children cannot watch them.

- **Off** : DTV Channel Lock will not work.
- **On** : DTV Channel Lock will work.

DTV Program Rating Lock

This function works in conjunction with DTV that have been assigned a rating, which helps you control the types of DTV that your family watches. Select the rating level you want to set.

BD Parental Rating

Prevent playback of Blu-ray Discs with specific age ratings unless a password is entered.

DVD Parental Rating

Prevent playback of DVDs with specific numerical ratings unless a password is entered.
A larger number indicates that the programme is intended for adult use only. For example, if you select up to Level 6, discs that contain Level 7, 8 will not play.

Change PIN

Change the 4-digit password used to access security functions.

If you forgot your password

1. Press the **MENU** button to display home menu with no disc inserted.
2. Press the **STOP** (■) button on the front panel of the product for more than 5 seconds. All settings will revert to the factory settings.

✎ **NOTE**

  ▪ When the factory default settings are restored, all the user stored BD data will be deleted.

General

Energy Saving

You can reduce power consumption by setting the front panel to turn off automatically when the product is in standby mode.
- **Off** : Set not to use the energy saving function.
- **On** : Turn off the front panel automatically when the product is in standby mode.

Light Effect

You can adjust the light effect on the product.
- **Always On** : Activate Light Effect at all times. It is recommended for continuous display for commercial or demonstration use.
- **Auto** : Activate Light Effect when you turn the product on or off and when you insert or eject a disc. This is recommended for home use.
- **Off** : Turn Light off.

Advanced Music Copy

When you copy music files, information can be updated automatically. The copying time may be increased.
- **Off** : Turn Advanced Music Copy Off.
- **On** : Turn Advanced Music Copy On.

✎ **NOTE**

  ▪ This feature is available only when the product is connected to the network.

  ▪ This can be used if you copy from an external device such as USB/ODD/AllShare to the HDD.
  ▪ This will not work if you copy from the HDD to an external device.

Network Remote Control

The Network Remote Control function lets you control your product from a remote device such as a smart phone through a wireless connection to your local area network.
To use the Network Remote Control function, follow these steps:

1. Select **On** in the Network Remote Control menu.
2. Install the Samsung network remote control application to control your product on your compatible portable device.
3. Make sure your portable device and your product are connected to the same wireless router.
4. Start the application on your portable device. The application should find your product and display it on a list.
5. Select the product.
6. If this is the first time you are using the function, it will ask you to allow or deny remote control of the product. Select Allow.
7. Follow the instructions that came with the application to control the product.

Support

Software Upgrade

The Software Upgrade menu allows you to upgrade the product's software for performance improvements or additional services.

By Internet

To upgrade by Internet, follow these steps:

1. Select **By Internet**, and then press the **ENTER** button. The Connecting to Server message appears.
2. If there is a download available, the Download pop-up appears with a progress bar and the download starts.

Setup

3. When the download is complete, the Upgrade Query window appears with three choices: Upgrade Now, Upgrade Later, or Don't Upgrade.

4. If you select Upgrade Now, the product upgrades the software, turns off, and then turns on automatically.

5. If you do not make a selection in one minute or select Upgrade Later, the product stores the new upgrade software. You can upgrade the software later using the Via Download function.

6. If you select Don't Upgrade, the product cancels the upgrade.

✎ NOTE

▪ Your product must be connected to the Internet to use the By Internet function.

▪ The upgrade is complete when the product turns off, and then turns on again by itself.

▪ Never turn the product off or back on manually during the update process.

▪ Samsung Electronics shall take no legal responsibility for product malfunction caused by an unstable Internet connection or consumer negligence during a software upgrade.

▪ If you want to cancel the upgrade while the upgrade software is downloading, press the **ENTER** button.

By Channel

Upgrade software using the broadcasting signal.

By USB

To upgrade by USB, follow these steps:

1. Visit www.samsung.com/bluraysupport.

2. Download the latest USB software upgrade zip archive to your computer.

3. Unzip the zip archive to your computer. You should have a single folder with the same name as the zip file.

4. Copy the folder to a USB flash drive.

5. No disc should be inserted in the product, and then insert the USB flash drive into the USB port of the product.

6. In the product's menu, go to Settings > Support > Software Upgrade.

7. Select **By USB**.

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✎ NOTE

▪ No disc should be inserted in the product when you upgrade the software using the USB Host jack.

▪ When the software upgrade is done, check the software details in the Software Upgrade menu.

▪ Do not turn off the product during the software upgrade. It may cause the product to malfunction.

▪ Software upgrades using the USB Host jack must be performed with a USB memory flash stick only.

By Disc

To upgrade by Disc, follow these steps:

1. Visit www.samsung.com/bluraysupport.

2. Download the latest disc software upgrade zip archive to your computer.

3. Unzip the zip archive to your computer. You should have a single folder with the same name as the zip file.

4. Write the folder onto a disc. We recommend a CD-R or DVD-R.

5. Finalize the disc before you remove it from your computer.

6. Insert the disc into product.

7. In the product's menu, go to Settings > Support > Software Upgrade.

8. Select **By Disc**.

✎ NOTE

▪ When the system upgrade is done, check the software details in the Software Upgrade menu.

▪ Do not turn off the product during the Software Upgrade. It may cause the product malfunction.

Via Download

The Via Download option lets you upgrade using a file the product downloaded earlier but you decided not to install immediately or a file downloaded by the product in Standby Mode (See Download in Standby Mode below).

To upgrade Via Download, follow these steps:

1. If upgrade software has been downloaded, you will see the software version number to the right of Via Download.

2. Select **Via Download**, and then press the **ENTER** button.

3. The product displays a message asking if you want to upgrade. Select **Yes**. The product begins the upgrade.

4. When the update is complete, the product turns off automatically, and then turns on.

✎ NOTE
   ▪ When the system upgrade is done, check the software details in the Software Upgrade menu.
   ▪ Do not turn off the product during the Software Upgrade. It may cause malfunction to the product.

Download in Standby Mode

You can set the Download in Standby Mode function so that the product downloads new upgrade software when it is in Standby mode. In Standby mode, the product is off, but its Internet connection is active. This allows the product to download upgrade software automatically, when you are not using it.

To set Download in Standby Mode, follow these steps:

1. Press the ▲▼ buttons to select **Download in Standby Mode**, and then press the **ENTER** button.

2. Select the desired downloaded time.
   If you select **Off**, the product will notify you with a pop up message when new upgrade software is available.
   If you select the desired downloaded time, the product will automatically download new upgrade software when it is in Standby mode with the power off.
   If it downloads new upgrade software, the product will ask you if you want to install it when you turn the product on.

✎ NOTE
   ▪ To use the Download in Standby Mode function, your product must be connected to the Internet.

Contact Samsung

Provides contact information for assistance with your product.

Basic Functions

05 Setup

Playing a Video

Playback

1. Push a disc into the product with the disc's label facing up.

2. Press the **PLAY** (▶) button.

Playback related buttons

PLAY (▶)	Starts playback.
STOP (■)	Stops playback. • If you press the button once : The stop position is memorized. • If you press the button twice : The stop position is not memorized.
PAUSE (❚❚)	Pauses playback.

✎ NOTE
   ▪ For some discs, pressing the **STOP** (■) button once may not memorize the stop position.
   ▪ Video files with high bit rates of 20Mbps or more strain the product's capabilities and may stop playing during playback.

3D Converter

This function can convert the 2D output of 2D contents into 3D.

1. Connect this product to a TV that supports 3D using an HDMI cable.

2. When you play 2D contents, press the **2D➡3D** button on the remote control to convert 2D into 3D contents.

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Basic Functions

3. You can toggle between 2D and 3D by pressing the **2D➡3D** button repeatedly. If you are playing 3D contents in the 3D mode, you cannot use this function.

✎ **NOTE**

▪ You can't convert 2D contents into 3D or use the 2D to 3D button In the following cases:
  - When the product is not connected with an HDMI cable
  - When the connected TV does not support 3D
  - When you are playing 3D contents (disc, file).

▪ 2D content is converted into the following 3D formats:
  - 1080p 24fps : Output to 1080p 24 fps 3D.
  - Others : Output to 720p 3D.
  - Photo files : Output to 720p 3D.

▪ 2D content that the product can convert to 3D:
  - 2D content that supports 3D conversion
  - Smart Hub content, DVD Video, BD-ROM, VCD, Video files, photo files, DTV programme, and recorded DTV programme.

▪ When you use the 3D converter, the BONUSVIEW function is not available.
  (Depending on the disc, a black outline appears.)

▪ Some viewers may experience discomfort while viewing 3D contents such as dizziness, nausea, and headaches.

Adjusting the 3D Depth
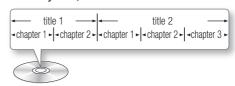
The 3D Depth function lets you adjust the 3D depth of 2D to 3D conversions. Values range from 1 to 10. The higher the number, the deeper the 3D depth.

1. When you are viewing converted 3D contents, press the **TOOLS** button.

2. Press the ▲▼ buttons to select **3D Depth**, and then press the **ENTER** button.

3. Adjust the 3D Depth using the ◄► buttons.

Disc Structure

The content of discs are usually divided as shown below.

• **Blu-ray Disc, DVD-VIDEO**

| title 1 | title 2 |
| chapter 1 ► | ◄ chapter 2 ► | ◄ chapter 1 ► | ◄ chapter 2 ► | ◄ chapter 3 ► |

• **Audio CD (CD-DA)**

| ◄ track 1 ► | ◄ track 2 ► | ◄ track 3 ► | ◄ track 4 ► | ◄ track 5 ► |

• **MP3, WMA, DivX, MKV and MP4**

| folder (group) 1 | folder (group) 2 |
| ◄ file 1 ► | ◄ file 2 ► | ◄ file 1 ► | ◄ file 2 ► | ◄ file 3 ► |
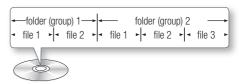
✎ **NOTE**

▪ Playback during recording converts the media into profile 1.0, while normal playback only supports profile 2.0. In such cases, the following limitations are applied:
  - BONUSVIEW is not available.
  - Browsable slideshow audio is not available.
    (Audio may not be produced in Disc Menu mode for some discs.)

Using the Disc Menu/Title Menu/Pop-up Menu

Using the Disc Menu

1. During playback, press the **DISC MENU** button on the remote control.
2. Press the ▲▼◄► buttons to make a selection, and then press the **ENTER** button.

✎ **NOTE**
  ▪ Depending on the disc, the menu items may differ and this menu may not be available.

Using the Title Menu

1. During playback, press the **TITLE MENU** button on the remote control.
2. Press the ▲▼◄► buttons to make the desired selection, then press the **ENTER** button.

✎ **NOTE**
  ▪ Depending on the disc, the menu items may differ and this menu may not be available.

Playing the Title List

1. During playback, press the **DISC MENU** or **TITLE MENU** button.
2. Press the ▲▼ buttons to select an entry you want to play from the Title List, and then press the **ENTER** button.

✎ **NOTE**
  ▪ If your disc has a playlist, press the **GREEN (B)** button to go to the playlist.

Using the Popup Menu

1. During playback, press the **POPUP MENU** button on the remote control.
2. Press the ▲▼◄► buttons or **ENTER** button to select the desired menu.

✎ **NOTE**
  ▪ Depending on the disc, the menu items may differ and this menu may not be available.

Using the Search and Skip Functions

During play, you can search quickly through a chapter or track, and use the Skip function to jump to the next selection.

Searching for a Desired Scene

• During playback, press the **SEARCH** (◄◄ ►►) button.

Each time you press the **SEARCH** (◄◄ ►►) button, the playback speed will change as follows:

HDD, BD-ROM, BD-RE/-R, DVD-RW/-R, DVD+RW/+R, DVD-VIDEO	►► 1 → ►► 2 → ►► 3 → ►► 4 → ►► 5 → ►► 6 → ►► 7 ◄◄ 1 → ◄◄ 2 → ◄◄ 3 → ◄◄ 4 → ◄◄ 5 → ◄◄ 6 → ◄◄ 7
DivX, MKV, MP4	►► 1 → ►► 2 → ►► 3 ◄◄ 1 → ◄◄ 2 → ◄◄ 3

• To return to normal speed playback, press the **PLAY** (►) button.

✎ **NOTE**
  ▪ The product does not play sound in search mode.

Basic Functions

Skipping Chapters

HDD | BD-ROM | BD-RE/-R | DVD-VIDEO | DVD±RW/±R | DivX/MKV/MP4

- During playback, press the **SKIP** (⏮ ⏭) button.
  If you press the **SKIP** (⏭) button, the disc moves to the next chapter.
  If you press the **SKIP** (⏮) button, the disc moves to the beginning of the chapter. One more press makes the disc move to the beginning of the previous chapter.

Slow Motion Play/Step Motion Play

Slow Motion Play

HDD | BD-ROM | BD-RE/-R | DVD-VIDEO | DVD±RW/±R | DivX/MKV/MP4

- In pause mode, press the **SEARCH** (▶) button.
  Each time you press the **SEARCH** (▶) button, the playback speed will change as follows:
  ▶ 1/8 ▶ 1/4 ▶ 1/2
- To return to normal speed playback, press the **PLAY** (▶) button.

✎ **NOTE**
   ▪ The product does not play sound in Slow mode.
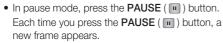
Step Motion Play

BD-ROM | BD-RE/-R | DVD-VIDEO | DVD±RW/±R | DivX/MKV/MP4

- In pause mode, press the **PAUSE** (⏸) button.
  Each time you press the **PAUSE** (⏸) button, a new frame appears.
- To return to normal speed playback, press the **PLAY** (▶) button.

✎ **NOTE**
   ▪ The product does not play sound in Step mode.

Using the TOOLS button

During playback, you can operate the disc menu by pressing the **TOOLS** button.

TOOLS

- **Tools Menu Screen**
  <BD-ROM / DVD>

Tools		
Title Search	◄	1/2 ►
Chapter Search	:	1/20
Time Search	:	00:00:13/01:34:37
Repeat Mode	:	Off
Picture Settings	:	Normal
Audio	:	1/1 JPN 2CH
Subtitle	:	0/2 Off
Angle	:	1/1
BONUSVIEW Video	:	Off
BONUSVIEW Audio	:	0/1 Off

◄► Change   ⏎ Enter   ↺ Return

  <HDD>

Tools		
Title Search	◄	1/3 ►
Time Search	:	00:24/01:46
Repeat Mode	:	Off
Picture Settings		
Audio Language	:	1.English
Dual I II	:	Dolby Digital
Detailed Information		

Number   ◄► Adjust   Exit

✎ **NOTE**
   ▪ Depending on the disc, the Tools menu may differ.

Moving to a Desired Scene Directly

HDD | BD-ROM | BD-RE/-R | DVD-VIDEO | DVD±RW/±R | DivX/MKV/MP4

1. During playback, press the **TOOLS** button.
2. Press the ▲▼ buttons to select **Title Search**, **Chapter Search**, or **Time Search**.
3. Press the ◄ ► or number button to select desired Title, Chapter or Time, then press the **ENTER** button.

Repeating the Title or Chapter

To repeat the disc title or chapter.

Depending on the disc, the Repeat function may not be available.

1. During playback, press the **TOOLS** button.

2. Press the ▲▼ buttons to select **Repeat Mode**.

3. Press the ◄ ► buttons to select **Chapter** or **Title**, then press the **ENTER** button.

4. To return to normal play, press the **TOOLS** button again.

5. Press the ▲▼ buttons to select **Repeat Mode**.

6. Press the ◄ ► buttons to select **Off**, then press the **ENTER** button.

Repeating the Title or Chapter

Repeat the disc title or all.

Depending on the disc, the Repeat function may not be available.

1. During playback, press the **TOOLS** button.

2. Press the ▲▼ buttons to select **Repeat Mode**, then press the ◄ ► buttons to select **Title** or **All**.

3. To return to normal play, press the **TOOLS** button again.

4. Press the ▲▼ buttons to select **Repeat Mode**.

5. Press the ◄ ► buttons to select **Off**, the press the **ENTER** button.

Repeating a Section

1. During playback, press the **TOOLS** button.

2. Press the ▲▼ buttons to select **Repeat Mode**.

3. Press the ◄ ► buttons to select **Repeat A-B**, then press the **ENTER** button.

4. Press the **ENTER** button at the point where you want repeat play to start (A).

5. Press the **ENTER** button at the point where you want repeat play to stop (B).

6. To return to normal play, press the **TOOLS** button again.

7. Press the ▲▼ buttons to select **Repeat Mode**.

8. Press the ◄ ► buttons to select **Off**, and then press the **ENTER** button.

✎ **NOTE**
  ▪ If you set point (B) before 5 seconds has lapsed, a prohibition message appears.
  ▪ Depending on the disc, the menu items may differ and this menu may not be available.

Selecting the Picture Settings

This function enables you to adjust video quality when the product is connected to a TV.

1. During playback, press the **TOOLS** button.

2. Press the ▲▼ buttons to select **Picture Settings**, and then press the **ENTER** button.

3. Press the ◄ ► buttons to select the desired **Picture Settings**, and then press the **ENTER** button.
   • **Dynamic** : Choose this setting to increase Sharpness.
   • **Normal** : Choose this setting for most viewing applications.

Basic Functions

- **Movie** : This is the best setting for watching movies.
- **User** : Lets you adjust the advanced settings.

✎ **NOTE**

- When you use BD wise function, this menu will not appear.

Selecting the Audio Language

You can also operate this function by pressing the **AUDIO** button on the remote control.

1. During playback, press the **TOOLS** button.
2. Press the ▲▼ buttons to select **Audio**.
3. Press the ◄► buttons to select the desired audio language.

✎ **NOTE**

- The ◄► indicator will not appear on the screen if the BONUSVIEW section does not contain any BONUSVIEW audio settings.

- Information about the main feature/BONUSVIEW mode will also appear if the Blu-ray Disc has a BONUSVIEW section.
  Press the ◄► button to switch between main feature and BONUSVIEW audio modes.

- The languages available through the Audio Language function depend on the languages that are encoded on the disc. This function or certain languages may not be available.

- A Blu-ray Disc can contain up to 32 audio languages and a DVD up to 8.

- Some Blu-ray Discs may allow you to select either the multi-channel LPCM or Dolby digital audio soundtrack in English.

- If you press the **AUDIO** button on the remote control, Audio bar appears.
  Press the **RETURN** button to remove the Audio bar.

Selecting the Subtitle Language

You can also operate this function by pressing the **AD/SUBTITLE** button on the remote control.

1. During playback, press the **TOOLS** button.
2. Press the ▲▼ buttons to select **Subtitle**.
3. Press the ◄► buttons to select the desired subtitle language.

✎ **NOTE**

- Depending on the Blu-ray Disc / DVD, you may be able to change the desired subtitle in the Disc Menu. Press the **DISC MENU** button.

- This function depends on the selection of subtitles that are encoded on the disc and may not be available on all Blu-ray Discs/DVDs.

- A Blu-ray Disc can contain up to 255 subtitle languages and a DVD up to 32.

- Information about the main feature/BONUSVIEW mode will also appear if the Blu-ray Disc has a BONUSVIEW section.

- This function changes both the primary and secondary subtitles at the same time.

- The total number of primary and secondary subtitles are displayed respectively.

- If you press the **AD/SUBTITLE** button on the remote control, the subtitle bar appears.
  Press the **RETURN** button to remove the subtitle bar.

Changing the Camera Angle

When a Blu-ray Disc/DVD contains multiple angles of a particular scene, you can use the ANGLE function.

1. During playback, press the **TOOLS** button.
2. Press the ▲▼ buttons to select **Angle**.
3. Press the ◄ ► buttons to select the desired Angle.

Selecting the Information

This function enables you to check the contents information including the name and size, etc.

1. During playback, press the **TOOLS** button.

2. Press the ▲▼ buttons to select the **Detailed Information**, then press the **ENTER** button.

Setting BONUSVIEW

The BONUSVIEW feature allows you to view additional content (such as commentaries) in a small screen window while the movie is playing. This function is only available if the disc has the BONUSVIEW feature.

1. During playback, press the **TOOLS** button.
2. Press the ▲▼ buttons to select **BONUSVIEW Video** or **BONUSVIEW Audio**.
3. Press the ◄ ► buttons to select the desired BONUSVIEW.

✎ **NOTE**
   ▪ If you switch from BONUSVIEW Video, BONUSVIEW Audio will change automatically in accordance with BONUSVIEW Video.
   ▪ 2D contents are playing convert into 3D, bonusview function is not available. (Depending on discs, black outline may be shown)

Listening to Music
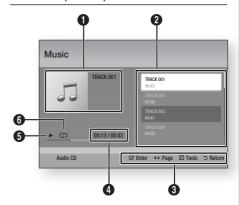
Playing an Audio CD (CD-DA)/MP3

1. Insert an Audio CD (CD-DA) or an MP3 Disc.
   • For an Audio CD (CD-DA), the first track plays automatically.
   • For an MP3 disc, press the ▲▼ buttons to select **Music**, then press the **ENTER** button.

Audio CD (CD-DA)/MP3 Screen Elements
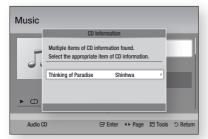
➊	Displays the music information.
➋	Displays the playlist.
➌	Displays buttons available.
➍	Shows the current play time/total play time.
➎	Displays the current playback status.
➏	Displays the repeated playback status.

2. Press the ▲▼ buttons to select the track you want to play, and then press the **ENTER** button.

Basic Functions

AMG function

You can use AMG function to display the information of an Audio CD (CD-DA).

1. Insert an Audio CD (CD-DA).
    If your disc has a CD information, the below pop-up screen will be displayed.

    Music

    CD Information

    Multiple items of CD information found.
    Select the appropriate item of CD information.

    | Thinking of Paradise | Shinhwa | ▶ |

    ► CD

    | Audio CD | ↵ Enter ◀▶ Page ⤢ Tools ↩ Return |

2. Press the **ENTER** button.
    The CD information will be displayed and the first track will be played automatically.

    ✎ **NOTE**

    ▪ When the product is disconnected from the network, it may not retrieve the CD information from the Audio CD (CD-DA) if it's the latest version.

Repeat an Audio CD (CD-DA)/MP3

1. During the Playlist playback, press the **TOOLS** button.

    TOOLS

2. Press the ▲▼ buttons to select **Repeat Mode**, and then press the ◀▶ buttons to select the desired repeat mode.

3. Press the ▲▼ buttons to select **Shuffle Mode**, and then press the ◀▶ buttons to select the **On** or **Off**.

4. Press the **ENTER** button.

| Off	Songs are played in the order in which they were recorded.
(◁⫯) One Song	The current song is repeated.
(◁⫯) All	All songs are repeated.
(⤭) Shuffle Mode	The random option plays songs in random order. To operate this function, please set the shuffle mode to **On**.

Playlist

1. Insert an Audio CD (CD-DA) or an MP3 Disc.
    *   For an Audio CD (CD-DA), the first track plays automatically.
    *   For an MP3 disc, press the ▲▼ buttons to select **Music**, then press the **ENTER** button.

2. To move to the Music List, press the **STOP** (■) or **RETURN** button.
    The Music List screen appears.

3. Press the **YELLOW (C)** button.

4. Press the ▲▼◀▶ buttons to move to a desired track, and then press the **ENTER** button. A check appears on the track. Repeat this procedure to select additional tracks.

    ⊙ **Audio CD** Music   1/2 Page

    Selected Items : 3

    | ✓ TRACK 001 00:43 | ✓ TRACK 002 03:56 |
    | TRACK 003 04:41 | TRACK 004 04:02 |
    | ✓ TRACK 005 03:43 | TRACK 006 03:40 |
    | TRACK 007 04:06 | TRACK 008 03:52 |

    C Close Edit Mode ◀◀▶▶ Page ⤢ Tools ↵ Select ↩ Return

5. To remove a track from the list, move to the track, and then press the **ENTER** button again.
    The check on the track is cancelled.

6. When done, press the **TOOLS** button.

7. Press the ▲▼ buttons to select **Play Selected**, and then press the **ENTER** button. The tracks you selected will be played automatically.

```
Music

 ♫        TRACK 001        TRACK 001
                          00:43
                          TRACK 002
                          03:56
                          TRACK 003
                          04:41
 ►              00:13 / 00:43

 Audio CD              ⏎ Enter  ⏏ Tools  ↩ Return
```

8. To go to the Music List, press the **RETURN** button.

✎ **NOTE**
  ▪ You can create a playlist with up to 99 tracks on Audio CDs (CD-DA).

Playing back a Pictures

```
📷
JPEG
```

Playing JPEG files

1. Insert a JPEG disc.
2. Press the ▲▼ buttons to select **Photos**, and then press the **ENTER** button.
3. Press the ▲▼◄► buttons to select the folder you want to play, and then press the **ENTER** button.
4. Press the ▲▼◄► buttons to select the photo you want to play, and then press the **ENTER** button.

✎ **NOTE**
  ▪ You can't enlarge the subtitle and PG graphic in the full screen mode.

Using the TOOLS button

You can use various function by pressing the **TOOLS** button.

```
TOOLS
```

```
                    Tools
        Start Slide Show
        Background Music  :        Off
        Background Music Setting
        Zoom
        Rotate
        Picture Settings
        Information
                              ⏎ Enter  ↩ Return
```

- **Start Slide Show** : Select to start the slide show.
- **Background Music** : Select to listen to music while viewing a picture.
- **Background Music Setting** : Select to set the background music setting.
- **Zoom** : Select to enlarge the current picture. (Enlarged up to 4 times)
- **Rotate** : Select to rotate the picture. (This will rotate the picture either clockwise or counter clockwise.)
- **Picture Settings** : Select this if you want to adjust the picture quality.
- **Information** : Shows the picture information including the name and size, etc.

✎ **NOTE**
  ▪ To enable the background music function, the photo file must be in the same storage media as the music file. However, the sound quality can be affected by the bit rate of the MP3 file, the size of the photo, and the encoding method.

Basic Functions

Using the Slide Show function

1. Press the **TOOLS** button.

2. Press the ▲▼ buttons to select **Start Slide Show**, and then press the **ENTER** button. The Slide Show starts.

3. To pause the slide show, press the **TOOLS** button again.

4. Press the ▲▼ buttons to select **Pause Slide show**, and then press the **ENTER** button.

5. You can also set the slide show speed and effect using the same method.

Media Play

Media Play will enable you to play HDD/USB contents or the contents transferred to your PC using the AllShare function.
For more information about AllShare, refer to page 82.

1. Press the **MENU** button.
   The home menu will be displayed.

2. In Stop mode, connect the USB storage device to the USB port on the front panel of the product.

3. Press the **ENTER** button.

4. Press the ▲▼◄► buttons to select the desired Videos, Music, or Photos, and then press the **ENTER** button.

5. For playing back Video, Music or Photo files, see pages 53~62.

✎ **NOTE**

- You must remove the USB storage device safely (by performing the "Safely Remove USB" function) in order to prevent a possible damage to the USB memory. Press the **MENU** button to move to the Home menu, select the **YELLOW (C)** button, and then press the **ENTER** button.

- If you insert a disc when playing a USB storage device, the device mode changes to "DVD or CD" automatically.

DTV Functions

Display Screen

1. After Tuning is completed, you can watch TV channel.

2. To change TV channels, press the **PROG** (∧/∨) button. (To move TV channel directly, press the channel numbers of desired TV channel using the number buttons on the remote control.)

3. If you want to watch TV after seeing Blu-ray/DVD/CD or any other contents including Internet contents via Smart Hub or Allshare, press the **MENU** button on your remote control to go Home menu.

4. If tuning is already completed, you can move to DTV mode by pressing **MENU** button again.

✎ **NOTE**

▪ The icon may differ depending on the service information of signal.

Using the TOOLS button

Press the **TOOLS** button while you are viewing a channel.

• Tools Menu Screen

Picture Settings

1. Press the **TOOLS** button while you are viewing a channel.

2. Press the ▲▼ buttons to select **Picture Settings**, then press the **ENTER** button. For more information about this menu, please refer to pages 57~58.

Selecting the Audio Language

1. Press the **TOOLS** button while you are viewing a channel.

2. Press the ▲▼ buttons to select the **Audio Language**.

3. Press the ◄► buttons to select the desired Audio Language, then press the **ENTER** button.

DTV Functions

Selecting the Dual I II

You can also operate this function by pressing the **AUDIO** button on the remote control.

AUDIO

1. Press the **TOOLS** button while you are viewing a channel.
2. Press the ▲▼ buttons to select the **Dual I II**.
3. Press the ◄ ► buttons to select the desired Audio, then press the **ENTER** button.

Lock current channel

You can lock a TV channel by setting PIN.

1. Press the **TOOLS** button while you are viewing a channel.
2. Press the ▲▼ buttons to select **Lock current channel** then press the **ENTER** button. PIN setting menu appears.
3. Enter 4-digit PIN number.
   If PIN setting is finished, Viewing locked channel is impossible unless you unlock.
4. If you want unlock a lock channel, press **TOOLS** button while you are viewing Lock Channels.
5. Press ▲▼ to select **Lock current channel**, then press the **ENTER** button.
6. Enter PIN to unlock a TV channel.
   ✎ NOTE
   ■ Lock current channel menu can be displayed when the country set to Netherlands.

Switch to Cable

If you want to see cable broadcast, select this menu.

1. Press the **TOOLS** button while you are viewing a channel.
2. Press the ▲▼ buttons to select **Switch to Cable**, then press the **ENTER** button.

Add to Favourites

1. Press the **TOOLS** button while you are viewing a channel.
2. Press the ▲▼ buttons to select the **Add to Favourites**, then press the **ENTER** button.
3. Press the ▲▼ buttons to edit the desired channel, then press the **ENTER** button.
4. Press the ◄ ► buttons to select the **OK**, then press the **ENTER** button.

Signal Information

1. Press the **TOOLS** button while you are viewing a channel.
2. Press the ▲▼ buttons to select the **Signal Information**, then press the **ENTER** button. You can check the signal information.

Setting Audio Description & Subtitle Language

Setting the Audio Description

You can add a verbal description to the main audio to help the visually impaired.

1. Press **AD/SUBTITLE** button while you are viewing a TV channel.
2. Press ▲▼ buttons to select **Audio Description**, then press the **ENTER** button.
3. If you select **On**, volume menu will be activated. Adjust the audio description volume from 0~100.
   ✎ NOTE
   ■ You can also toggle Audio Description by pressing **AD/SUBTITLE** button once again after you press **AD/SUBTITLE** button first time.

Setting the Subtitle Language

1. Press the **AD/SUBTITLE** button while you are viewing a TV channel.
2. Press ▲▼ button to select **Subtitle** menu, then press the **ENTER** button.

- **Subtitle** : You can set it to **On** or **Off**.
  If you select **On**, the **Subtitle Mode** and **Subtitle Language** will be activated.
- **Subtitle Mode** : Select the desired subtitle mode.
- **Subtitle Language** : Select the desired subtitle language.

Viewing the Guide Screen

The EPG (Electronic Programme Guide) information is provided by broadcasters. Using channel schedules provided by broadcasters, you can specify channels you want to watch in advance so that the channel automatically changes to the selected channel at the specified time. Channel entries may appear blank or out of date depending on a channel status.

You can also operate this function by pressing the **GUIDE** button on the remote control.

1. Press the **MENU** button.
   The home menu will be displayed.
2. Press the ◄► buttons to select the **Watch TV**.
3. Press the ▲▼ buttons to select the **Guide**, then press the **ENTER** button.
   The guide screen will be displayed.

- **Guide Screen**

❶	Displays the channel screen.
❷	Displays the channel information.
❸	Displays the current date and time.

❹	**Nevigation Help** : Displays remote control buttons available.
	• **RED (A)** : To set the programme schedule.
	• **YELLOW (C)** : It displays channel from now to 24 hours after.
	If you select **YELLOW (C)** button, **GREEN (B)** button will be displayed. Press this to display the list of channels before 24 hours.
	• **BLUE (D)** : To change the Channel View (All, TV, Radio, Data/Other, Favourites 1,2,3...)
	• **PROG (∧/∨)** buttons : Go to previous page or next page.
	• **ENTER** button
	  - When you select a programme currently being broadcast, you can watch the selected channel in the full screen.
	  - When you select a programme scheduled to broadcast, you can set the Timer viewing or Timer recording. Press the ◄► button to select the Timer viewing or Timer recording, then press the **ENTER** button again. The Timer icon appears on the guide screen.

❺	Displays the Stored channels.
❻	Displays view mode.

Schedule Manager

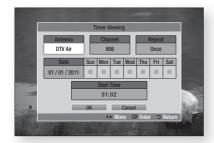Make sure that clock must be set before operating this function. (See page 48)

You can also operate this function by pressing the **GUIDE** button on the remote control.

1. Press the **MENU** button.
   The home menu will be displayed.
2. Press the ◄► buttons to select the **Watch TV**.
3. Press the ▲▼ buttons to select the **Guide**, then press the **ENTER** button.
   The guide screen will be displayed.

DTV Functions

4. Press the ▲▼◄► buttons to select the channel you want to set Timer Recording (or Timer Viewing), press the **RED (A)** button.

5. Press the **ENTER** button.

6. Press the ◄► buttons to select **Timer Viewing** or **Timer Recording**, then press the **ENTER** button.

7. Fill the input items using ▲▼◄► buttons, then press the **ENTER** button.

8. Press the **ENTER** button again.

✎ NOTE

■ If the programme is set to Timer Viewing or Timer Recording in the schedule manager, the Timer icon does not appear on the guide screen.

To Cancel or Edit Schedule

1. Press the **RED (A)** button in the guide screen.

2. Press the ▲▼◄► buttons to select the scheduled channel you want to cancel or edit, then press the **ENTER** button.

3. Press the ◄► buttons to select the **Cancel Schedules** or **Edit**, then press the **ENTER** button.

✎ NOTE

■ If the reserved programme is edited in the schedule manager, the Timer icon does not appear on the guide screen.

Viewing DTV with the 3D effect

You can experience 3D effect with all live TV programme and recorded TV programme.

1. During watching the TV programme or playing recorded TV programme, press the **2D➡3D** button on your remote control. The 3D menu will appear.

   • **2D➡3D** : Changes a 2D image to 3D.

   • **Side by Side** : Displays two images next to each other.

   • **Top and bottom** : Displays one image above another.

2. Press the ◄► buttons to select the desired 3D mode, then press the **ENTER** button.

3. If you press the **2D➡3D** button once more during 3D viewing, displayed image will be changed into 2D mode.
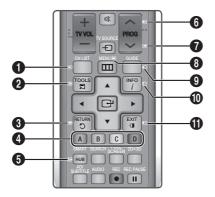
✎ NOTE

■ If you change TV channel during watching DTV in 3D mode of Side by Side mode, displayed image will be changed into 2D mode automatically.

■ When 3D effect of Side by Side mode is enabled, you can not adjust 3D mode.

■ If TV programme is not support Side by Side, Top and Bottom mode or Auto Detection function, 3D menu selection OSD is not appear.

Using the Teletext Service

If DTV programme supports teletext signal, you can use teletext service. For Teletext information is displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

1. Press **TTX/MIX** button while you are viewing a TV channel.
2. By pressing the **TTX/MIX** button repeatedly, you can change or exit the teletext mode.

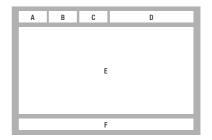|	
❶	(store) : Stores the Teletext pages.
❷	(size) : Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.
❸	(hold) : Holds the display at the current page, in the case that there are several secondary pages that follow automaticially. To undo, press it again.
❹	Colour buttons (red, green, yellow, blue) : If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colour-coded and can be selected by pressing the coloured buttons. Press the colour corresponding to the topic of your choice. A new colourcoded page is displayed. Items can be selected in the same way. To display the previous or next page, press the corresponding coloured button.
❺	(sub-page) : Displays the available sub-page.

❻	(page up) : Displays the next Teletext page.
❼	(page down) : Displays the previous Teletext page.
❽	(index) : Displays the index (contents) page at any time while you are viewing Teletext.
❾	(mode) : Selects the Teletext mode (LIST/FLOF). If pressed during LIST mode, switches the mode to List savemode. In List save mode, you can save a Teletext page into a list using the (store) button.
❿	(reveal) : Displays the hidden text (answers to quiz games, for example). To display the normal screen, press it again.
⓫	(cancel) : Shrinks the Teletext display to overlap with the current broadcast.

Typical Teletext page

Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

✎ NOTE

▪ Teletext TTX/MIX control is available only when the DTV programme support teletext signal.
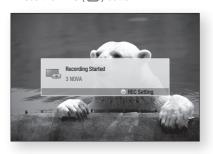
Advanced Functions

Recording

This product can record in HDD or external devices.

Before recording

Please check the default recording device and available storage size in Device management. (For more information about device management, please refer to page 49)

Recording the current TV channel you are watching

1. Press the **PROG** (∧/∨) or number buttons to select a TV Channel you want to record.

2. Press the **REC** (⬤) button.

Recording Started
3 NOVA
REC Setting

3. If you want to adjust length of the recording, press the **REC** (⬤) button during the recording.

4. Press the ▲▼ buttons to select the desired length of the recording, then press the **ENTER** button.

To pause recording

1. Press the **REC PAUSE** (⏸) button to pause a recording in progress.

2. Press the **REC PAUSE** (⏸) or **REC** (⬤) button resume recording.

To stop recording

1. Press the **STOP** (⏹) button to stop a recording in progress. The message "Recording completed." will appear.

2. When you are recording a TV channel other than you are watching now, press the **STOP** (⏹) button, then message appears as below.

> ⚠ Do you want to stop recording XXXXX from XXXXX?
>
> | Yes | No |

3. Press the ◄ ► buttons to select **Yes**, then press the **ENTER** button to stop recording.

4. During these process, there are no need to change TV channels to the channel under recording.

Playback control during recording

During recording a TV channel, you can search scene or move to the beginning point of recording.

1. **SEARCH** (◄◄ ►►) buttons : Search the desired scene.
   ►► 1 → ►► 2 → ►► 3 →
   ►► 4 → ►► 5 → ►► 6 → ►► 7
   ◄◄ 1 → ◄◄ 2 → ◄◄ 3 →
   ◄◄ 4 → ◄◄ 5 → ◄◄ 6 → ◄◄ 7

2. **SKIP** (⏮) button : Return to the beginning point of recording.

3. **SKIP** (⏭) button : Jump to the same scene with Live TV.

4. ◄ button : Jump to - 20 sec from current positon.

5. ► button : Jump to + 20 sec from current position.d

6. **PAUSE** (⏸) button : Pause the scene while keeping recording progress.

7. **STOP** (⏹) button : If you are watching the past scene, the playback point will jump to the same scene with Live TV. If you are watching same scene with Live TV, recording will be stopped.

Checking Recordable Time

You can check recordable time in your HDD.

1. In the Home menu, press the ◄ ► buttons to select **My contents**.
2. Press the ▲▼ buttons to select the **Recorded TV**, and then press the **ENTER** button. The Recorded TV List will be displayed.
3. Press ◄ button to select **HDD**, then press **INFO** button.

✎ **NOTE**

  ▪ After formatting, the capacity of HDD is displayed as roughly 93% when compared to the vendor specification of HDD.
    This product store some data in HDD for functional purpose.

  ▪ If available storage is left less than 10MB during the recording, recording is finished automatically.

Watching other channels during Recording a TV channel

While a TV programme is being recorded, you can also watch other free TV channels.
However, you can not watch scrambled TV channels while other TV channel is being recorded.

1. During the recording, press the **PROG** (∧/∨) or number buttons to change the channel you want to watch.

✎ **NOTE**

  ▪ Recored files of less than 10 seconds are not saved.

  ▪ If the free space available for recording and multimedia files in the HDD is less than 10MB, recording will be not enabled.

Playing a Disc while Recording a TV channel

You can play a disc while you are recording a TV channel.

When disc is already loaded before start recording

1. Press the **MENU** button on your remote while recording a TV channel.
2. In the Home menu, press the ◄ ► buttons to move to **My Devices**.

3. Press the ▲▼ buttons to select a disc to play and press the **ENTER** button.

When Disc is not loaded

1. Insert a disc into Disc Slot.
2. Disc will be loaded and played while keeping recording.

✎ **NOTE**

  ▪ This product supports Blu-ray Video, DVD Video and CD-DA.

Playing Recorded TV contents while Recording a TV channel

1. Press the **MENU** button on your remote while recording a TV channel.
2. In the Home menu, press the ◄ ► buttons to move to **My Contents**.
3. Press the **ENTER** button to Recorded TV.

✎ **NOTE**

  ▪ To stop recording, please change operation mode to DTV view and press the **STOP** (■) button.

  ▪ The TV programme under recording is not displayed at 'Recorded TV' page in 'My contents'.

Time Shift function

You can pause a live TV or start watching the TV programme from the beginning point you started Time Shift function.

Start Time Shift function with PAUSE button

1. When you are watching a TV channel, press the **PAUSE** (❙❙) button.
2. The image of TV programme will be paused, and then Time Shift bar will appear.
   ❙❙ Pause is displayed on the left side of Time Shift bar.
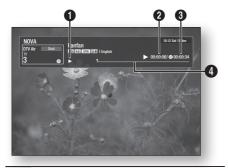
Start Time Shift with PLAY button

1. When you are watching a TV channel, press the **PLAY** (▶) button.
2. The Time Shift function starts and the Time Shift bar will appear. Live TV is displayed on the left side of Time Shift bar.

Advanced Functions

Time Shift information

You can see current information about Time Shift function.

1. Press the **ENTER** button on your remote while Time Shift function is enabled.

2. Time Shift bar appears as below.

• **Time Shift Screen**

❶	Mode Display : Shows current status of Time Shift function.
❷	Shows current playback point.
❸	Shows recorded time by Time Shift function.
❹	Shows progress bar.

Playback control button during Time Shift function is enabled

1. **SEARCH** (◀◀ ▶▶) buttons : Search the desired scene.
   ▶▶ 1 → ▶▶ 2 → ▶▶ 3 →
   ▶▶ 4 → ▶▶ 5 → ▶▶ 6 → ▶▶ 7
   ◀◀ 1 → ◀◀ 2 → ◀◀ 3 →
   ◀◀ 4 → ◀◀ 5 → ◀◀ 6 → ◀◀ 7

2. **SKIP** (▐◀◀) button : return to the beginning of Time Shift.

3. **SKIP** (▶▶▌) button : Shows same scene with Live TV.

4. ◀ button : Jump to - 20 sec from current positon.

5. ▶ button : Jump to + 20 sec from current position.

6. **PAUSE** (❚❚) button : Pause the scene while keeping Time shift operation.

7. **STOP** (■) button : If you are watching the past scene, playback point will jump to the same scene with Live TV. If you are watching the same scene with Live TV, the Time shift function will be stopped.

To stop Time Shift

1. If Time Shift bar is not in **PAUSE** or **PAST** mode, press **STOP** (■) button.
   The message "Do you want to stop Timeshift." will appear.

2. Select **Yes** button and press **ENTER** button to stop Time Shift.

3. If the Time Shift bar is in **PAUSE** or **PAST** mode, Time Shift mode will be changed into Live TV when you press **STOP** (■) button first time.

4. Press **STOP** (■) button again, then same message with above image appears.

5. Select **Yes** then press the **ENTER** button.

Playing the Recorded Title

1. In the Home menu, press the ◀ ▶ buttons to select the **My Contents**.

2. Press the ▲▼ buttons to select the **Recorded TV**, and then press the **ENTER** button.
   The Recorded TV List will be displayed.

3. Press the ▲▼◀ ▶ buttons to select the title you want to play, then press the **ENTER** button.
   The selected title will be played back.

4. During the playback, press the **ENTER** button. Display five scenes as thumbnails.

5. Press the ◀ ▶ buttons to select desired scene, then press the **ENTER** button to start playback from the beginning of the scene.

Edit the Recorded Title

1. In the Recorded TV screen, press the **YELLOW (C)** button to display check box.

2. Press the **ENTER** button to select the desired title you want to edit.

3. Press the **TOOLS** button.

4. Press the ▲▼ buttons to select the **Edit**, then press the **ENTER** button.

Recorded TV HDD 1/1 Page

Tools
Play Selected File
Select Group
Deselect All
Lock/Unlock
Delete
Edit
Detailed Information

↵ Enter ↺ Return

N
(x)
No title
xx:xx:xx xx:xx:xx

C Play Mode D Sorting ⊡ Tools ↺ Return

Renaming a Recorded Title

Follow Steps 1 through 4 in the 'Edit the Recorded Title'.

1. Press the ◄► buttons to select the **Rename**, then press the **ENTER** button.

Recorded TV HDD 1/1 Page
1 file selected Title

Edit
No title

Select Edit Features
Rename Split Partial Delete
◄► Move ↵ Enter ↺ Return

C Play Mode D Sorting ⊡ Tools ↺ Return

2. Select the desired characters using the ▲▼◄► buttons, then press the **ENTER** button.

3. Press the ▲▼◄► buttons to select **Done**, then press the **ENTER** button.

Splitting a Section of a Title (Divide into two)

Follow Steps 1 through 4 in the 'Edit the Recorded Title'.

1. Press the ◄► buttons to select the **Split**, then press the **ENTER** button.

Split No title

Part 1 Select
00:00:00 Split
         Return
Part 2
00:00:00

▶ Play 00:00:22 / 00:04:37

▶ Ⅱ ◄◄ ►► Playback Controls ◄◄►► Scene Search ◄► Jump ↕ Move ↵ Enter

2. Using the playback-related buttons, move to a point for splitting and then press the **ENTER** button.

3. Press the **ENTER** button to select **Split**.

4. Press the ◄► buttons to select **Yes**, then press the **ENTER** button.
The split title is divided into two, and the following titles will be shifted down by one.

5. Press the **ENTER** button to select **OK**.

✎ **NOTE**

▪ The minimum length of split section should be longer than 10 seconds.

Splitting a Section of a Title (Partial Delete)

1. Press the ◄► buttons to select the **Partial Delete**, then press the **ENTER** button.

Partial Delete No title

0901 290 0035
664

Part 1 Start
00:00:00 End
         Delete
Part 2   Return
00:00:00

▶ Play 00:00:33 / 00:08:21

▶ Ⅱ ◄◄ ►► Playback Controls ◄◄►► Scene Search ◄► Jump ↕ Move ↵ Enter

Advanced Functions

2. Press the **ENTER** button at the starting point. The image and starting point time is displayed in the section deletion starting point window.
   - Select the start and end points of the section you want to delete using the playback related buttons.
3. Press the **ENTER** button at the end point. The image and end point time is displayed in the Section deletion ending point window.
4. Press the **ENTER** button to select **Delete**.
5. Press the ◄ ► buttons to select **OK**, then press the **ENTER** button.

✎ **NOTE**
   ▪ The minimum length of delete section should be longer than 10 seconds.

Copy

Copying Videos, Music or Photos

Contents	HDD/DISC/ AllShare ➡ USB	DISC/USB/ AllShare ➡ HDD	HDD/DISC/ USB ➡ AllShare
Music	Supported	Supported	Supported
Photos	Supported	Supported	Supported
Videos	Supported	Supported	Supported

- Disc (CD-DA/CD-R/CD-RW, DVD±R(Finalise)/ DVD+RW/DVD-RW(Finalise)) ➡ HDD or USB
- PTP USB is not available when you copy to USB.
- The copy function is not supported if the device is formatted with NTFS.
- The broadcast signal can be recorded on HDD but copy feature is not supported.

1. Press the **MENU** button. The home menu will be displayed.
2. In Stop mode, connect the USB storage device to the USB port on the front panel of the product.
3. Press the **ENTER** button.
4. Press the ▲▼◄ ► buttons to select the **Music**, then press the **ENTER** button.

5. Press the **YELLOW (C)** button to display the check box.
6. Press the **ENTER** button to check desired track.
7. Press the **TOOLS** button.

8. Press the ▲▼ buttons to select the **Copy**, then press the **ENTER** button.
9. Press the **ENTER** button again. To cancel the copying in progress, press the **STOP** (■) button.

Ripping from a Audio CD (CD-DA)

1. Insert an Audio CD (CD-DA), then press the **STOP** (■) or **RETURN** button to move to the Music List.
2. Press the **YELLOW (C)** button to display the check box.
3. Press the **ENTER** button to check desired track.
4. Press the **TOOLS** button.

5. Press the ▲▼ buttons to select the **Ripping**, then press the **ENTER** button.

Network Services

You can enjoy various network services such as Smart Hub or BD-LIVE by connecting the product to your network.

Read the following instructions before using any network service.

1. Connect the product to the network. (See pages 30~31)

2. Configure the network settings. (See pages 44~48)

Using Smart Hub

Using Smart Hub, you can stream movies, videos, and music from the Internet, access various for pay or free-of-charge applications and view them on your TV. Application content includes news, sports, weather forecasts, stock market quotes, maps, photos, and games.

You can also start this function by pressing the **SMART HUB** button on the remote control.

SMART
HUB

Starting Smart Hub for the First Time

To start Smart Hub for the first time, follow these steps :

1. Go to the Home menu.

2. Press the ◄ ► buttons to select **Internet,** and then press the **ENTER** button.

3. The Smart Hub screen appears.
   In a few cases, the Country screen appears immediately after.

4. If the Country screen has appeared, press the ▲▼ buttons to select your country, then press the **ENTER** button.

   ✎ NOTE
   ▪ Certain applications are available only in certain countries.

5. The Terms of Service Agreement screen appears.
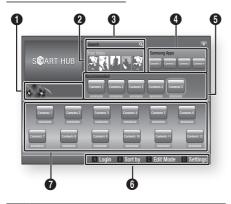   If you want to agree, press the ◄ ► buttons to select **Agree**, then press the **ENTER** button.

   ✎ NOTE
   ▪ Screens can take a few seconds to appear.

6. The Service Update screen appears and installs a number of services and applications. When done, it closes. The applications and services downloaded are displayed on the Smart Hub screen. This may take some time.

   ✎ NOTE
   ▪ Smart Hub may close momentarily during the installation process.
   ▪ A number of screens may appear after installation. You can press the **ENTER** button to close them or let them close on their own.

7. To start an application, press the ▲▼◄► buttons to highlight a widget, then press the **ENTER** button.

Network Services

Smart Hub at a Glance

① **Commercial** : Displays the Smart Hub Guide, an introduction to the product, and new application introductions.

② **Your Video** : Provides recommendations for videos based on your tastes.
- Lets you see movie recommendations based on your previous preferences.
- Lets you select a movie, displays a list of VOD (Video on Demand) providers that have the movie, and then lets you choose a provider for streaming. (Streaming is unavailable in some areas.)
- For instructions to use Your Video, please visit www.samsung.com.

③ **Search** : Provides an integrated search of your video providers and connected AllShare devices.
- Usable while using Smart Hub (except when you are watching a Blu-ray Disc).
- For easy access, use the **SEARCH** button on the remote control.
- For instructions to use search function, please visit www.samsung.com.

④ **Samsung Apps** : You can download various for pay or free-of-charge application services.

⑤ **Recommended** : Displays recommended contents managed by Samsung.

⑥ **Navigation Help** : Displays the remote control buttons you can use to navigate in Smart Hub.
- **RED (A)** : To log in to Smart Hub.
- **GREEN (B)** : To sort the applications.
- **YELLOW (C)** : To edit the applications.
- **BLUE (D)** : To change the settings of Smart Hub.

⑦ **My Applications** : Displays your personal gallery of applications which you can add to, modify, and delete.
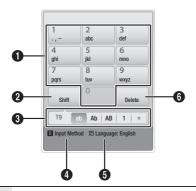
✎ NOTE

- Samsung Electronics takes no legal responsibility for any interruption of the Smart Hub service caused by the service provider for any reason.

- The Smart Hub service downloads and processes data via the Internet so that you can enjoy the Internet contents on your TV screen.
  If the Internet connection is unstable, the service may be delayed or interrupted.
  Furthermore, the product may turn off automatically in response to conditions on the Internet.
  If this occurs, check the Internet connection and try again.

- Application services may be provided in English only and the contents available may vary, depending on your area.

- For more information about a Smart Hub service, visit the web site of the applicable service provider.

- The services provided are subject to change by the Smart Hub service provider without notice.

- The Smart Hub service contents may differ depending on the product's firmware version.

Using the Keypad

Through your remote, you can use the On-Screen Keypad to enter letters, numbers, and symbols.

1	The current keypad. Use to enter letters, numbers, and symbols.
2	Press the **DISC MENU** button on the remote control to shift the input mode. : ab, Ab, AB, numbers or icons.
3	Displays the current input mode.
4	Press the **GREEN (B)** button on the remote control to change the input method. (T9 or ABC)
5	Press the **TOOLS** button on the remote control to change the language.
6	Press the **TITLE MENU** button on the remote control to delete a character.

Entering Text, Numbers and Symbols

To enter text, press the number button on the remote that corresponds to the letter you want to enter. Press the button rapidly to enter a letter that is not the first letter listed on the On-Screen keypad button. For example, if you want to enter the letter b, press the 2 button on your remote rapidly twice. To enter the first letter listed on a button, press, release, and then wait.
To move within the text, use the Arrow buttons.

To delete text, move the cursor to the right of the character you want to delete, and then press the **TITLE MENU** button. To change case or enter numbers or punctuation, press the **DISC MENU** button.

Creating an Account

To establish your own, exclusive, configuration of Smart Hub, create your own Smart TV Account.
To create an account, follow these steps:

1. Press the **RED (A)** button on your remote control. The Create Account screen appears.

2. Press the ▲▼◄► buttons to select **Create Account**, and then press the **ENTER** button.

3. On the next screen, select **Smart TV ID**, and then press the **ENTER** button.
   An entry screen and keypad appear.

4. Use the keypad to enter your e-mail address. This will serve as your ID.

✎ **NOTE**

  ▪ The keypad works like the keypad on a cell phone.

5. When done, press the **ENTER** button to select **OK**, and then press the **ENTER** button again. The Create Account screen re-appears.

6. Select **Password**, and then press the **ENTER** button. An entry screen and a keypad appear.

7. Use the keypad to enter a password. The password can be any combination of letters, numbers, and symbols.

✎ **NOTE**

  ▪ Press the **RED (A)** button on your remote to show or hide the password as you enter it.

Network Services

8. When done, press the **ENTER** button to select **OK**, and then press the **ENTER** button again. The Create Account screen re-appears.

9. Select **Confirm password**, and then press the **ENTER** button.

10. Repeat Steps 7 and 8.

11. When the Create Account screen re-appears, select **Create Account**, and then press the **ENTER** button. The Confirmation window appears.

12. Select **OK**, and then press the **ENTER** button. The Continue to Register Service window appears.

13. Select **Go Register**, and then press the **ENTER** button.

14. The Register Service Account Window appears.
    • If you have existing accounts with any of the listed providers, you can associate the provider account and the provider account password with your Smart TV Account. Registration makes it easier to access the providers web site. For registration instructions, go to Step 2 in Account Management under the Settings Menu.
    • If you don't have existing provider accounts or do not want to register existing accounts at this time, select **OK**, and then press the **ENTER** button. You can also let the window close on its own in about a minute.

✎ NOTE
   ▪ You must use an e-mail address as an ID.
   ▪ You can register up to 10 User Accounts.
   ▪ You do not need an account to use Smart Hub.

Account Log In

To log in to your Smart TV Account, follow these steps:

1. With the Smart Hub main screen displayed on your TV, press the **RED (A)** button on your remote. The Create Account screen appears.

2. Select the **Down Arrow** next to the **Smart TV ID** field, and then press the **ENTER** button.

3. Select your ID from the list that appears, and then press the **ENTER** button. The Create Account screen re-appears.

4. Select **Password**, and then press the **ENTER** button. An entry screen and a keypad appears.

5. Using the keypad and your remote, enter your password. When done, press the **ENTER** button, select **OK**, and then press the **ENTER** button again.

✎ NOTE
   ▪ If you want Smart Hub to enter your password automatically, select Remember my Smart TV ID and password after you have entered your password, and then press the **ENTER** button. A check appears. Smart Hub will now enter your password automatically when you select or enter your ID.

The Settings Menu - BLUE (D)

The Settings Menu Screen gives you access to account management, service manager, reset, and properties functions.

To access the Settings Menu, and then select a menu item, follow these steps:

1. Press the **BLUE (D)** button on your remote.

2. Press the ▲▼ to select a menu item, and then press the **ENTER** button.

The functions on the Settings Menu screen are described below.

✎ NOTE
   ▪ The Service Manager item listed in the Settings Menu is not available for BD-HDD Combo.

Account Management

The Account Management Menu contains functions that let you register your service provider accounts, change your Smart Hub password, and delete or deactivate your Smart TV ID.

Register Service Account

If you have existing accounts with any of the providers listed by the Register Service Account function, you can associate the provider account and the provider account password with your Smart TV Account. If you associate the account, you will be able to log onto the account through Smart Hub easily, without entering your account name or password.

To use the Register Service Account function, follow these steps:

1. In the Account Management menu, select Register Service Account, and then press the **ENTER** button. The Register Service Account Window appears.

2. Press the ▲▼ buttons to select a Service Provider you want to associate with your Smart TV Account, and then press the **ENTER** button.

✎ NOTE

  ▪ If you have a Samsung apps account and you want to use the Samsung Apps function in Smart Hub, you must register your Samsung Apps account here. See pages 80~81 for more information.

3. Press the ▲▼ buttons to select **Register**, and then using your remote and the on-screen Keypad, enter your site ID and password. When done, press the **ENTER** button.

✎ NOTE

  ▪ This is the ID and password you normally use to access your account on this site.

4. If you have entered the ID and password correctly, the Registered Successfully message appears.

5. If you pressed **OK**, repeat Steps 2 through 4 to associate another Service Provider.

6. When you are done, press the **RETURN** button.

Change Password

The Change Password function lets you change your Smart Hub password. To change the password, follow these steps:

1. Select **Change Password**, and then press the **ENTER** button.

2. Enter your current password. The next screen appears.

3. On the next screen, enter a new password on the first line. Enter it again on the second line to confirm.

4. The Changing Password Complete message screen appears. Press the **ENTER** button or wait for the screen to close - about 5 seconds.

Remove Service Accounts

The Remove Service Accounts function cancels all your current registered Service Accounts that you registered on the Register Service Account screen.

Deactivate Account

The Deactivate Account function deactivates your Smart TV Account and deletes it and all your account settings entirely from Smart Hub.

Reset

The Reset function initializes all downloaded widgets, erases all user accounts and settings from the product, and resets all Smart Hub settings to the factory default settings. It then restarts Smart Hub as if it were starting for the first time. Your account, however, remains on the Smart Hub server. To log into your account, enter your ID and password on the Create Account screen.

To use the Reset function, follow these steps:

1. In the Settings menu, select Reset, and then press the **ENTER** button.
   The Reset screen appears.

2. Enter the your Security password. This is the password you entered if you set up a BD or DVD Parental rating (See pages 50~51). If you did not, enter 0000.

Network Services

3. After a few moments, Smart Hub automatically resets. The screen may go black, then Smart Hub re-appears. In a few moments, it starts the re-initialization procedure.

4. To complete the re-initialization, go to Step 4 in Starting Smart Hub for the First Time. (See page 73)

✎ NOTE

▪ If you forgot your password, press the **STOP** (◼) button on the front panel of the product for more than 5 seconds with no disc inserted.

Properties

The Properties menu item lists three functions that display information about Smart Hub :

Detail

Lists information about Smart Hub including version number, the number of services installed, memory usage, and the unique product ID.

Terms of Service Agreement

Displays the Terms of Service Agreement.

The Edit Mode Menu - YELLOW (C)

The functions in the Edit Mode menu let you manipulate the widgets in the My Applications section of the Smart Hub screen. Using these functions, you can lock and unlock access to some widgets, New Folder and move widgets to them, rename folders, delete widgets, and change the position of widgets on the screen.

To access the Edit Mode Menu, and then select a menu item, follow these steps:

1. Press the **YELLOW (C)** button on your remote. The Edit Mode menu bar appears on the bottom of the screen.

2. Press the ▲▼◄► to select a menu item, and then press the **ENTER** button.

The functions in the Edit Mode Menu bar are described below.

✎ NOTE

▪ Some menu items may not appear on the screen. To see these items, press the ◄► to move to the screen edge, and then press one more time to reveal the items.

▪ You can close the bar by highlighting the X on the bottom right side, and then pressing the **ENTER** button.

Move

The Move function lets you change the screen position of a widget. To use the Move function, follow these steps:

1. Press the **YELLOW (C)** button on your remote.

2. Select a widget, and then press the **ENTER** button. A check appears above the widget.

3. Press the ▲▼◄► to select **Move**, and then press the **ENTER** button. A position change icon appears above the widget.

4. Press the ▲▼◄► to move the icon. Press the **ENTER** button when the icon is in the position of your choice. The widget moves to its new location.

Move to Folder

The Move to Folder function lets you move a widget to a folder. To use the Move to Folder function, follow these steps:

1. Press the **YELLOW (C)** button on your remote.

2. Select a widget, and then press the **ENTER** button. If you already create a folder, the widget can be moved.

3. Press the ▲▼◄► to select Move to Folder, and then press the **ENTER** button. The Move to Folder window opens.

4. Press the ▲▼◄► to select a folder, and then press the **ENTER** button. The Move to Folder message appears, and then closes. The widget has been moved to the folder.

To Access Widgets in a Folder

1. Close the Edit Mode menu.

2. In My Applications, press the ▲▼◄► to select a folder, and then press the **ENTER** button. The folder opens.

3. Select a widget, and then press the **ENTER** button. The widget's application or service starts.

To Edit Items in a Folder

Select a folder, and then press the **ENTER** button. The folder opens.

Press the **YELLOW (C)** button on your remote. The Edit buttons appear at the bottom of the screen.

These buttons work the same as the Edit Mode menu buttons on the main screen. For example, to move a widget back to the My Applications main screen:

1. Select the widget.

2. Select Move to Folder, and then press the **ENTER** button. The Move to Folder window appears.

3. Select My Applications, and then press the **ENTER** button. The Move to Folder window closes and the widget returns to the main My Applications screen.

New Folder

The New Folder function lets you create and name new folders. Once you have created a folder, you can move widgets into it. To use the New Folder function, follow these steps:

1. Press the **YELLOW (C)** button on your remote.

2. Press the ▲▼◄► to move the cursor to New Folder, and then press the **ENTER** button. The New Folder window and a keypad appear.

3. Use the keypad to enter the name of the folder, and then press the **ENTER** button. The New Folder screen closes and the New Folder appears on the Smart Hub screen.

Rename Folder

The Rename Folder function lets you rename folders. To use the Rename Folder function, follow these steps:

1. Press the **YELLOW (C)** button on your remote.

2. Press the ▲▼◄► to select a folder, and then press the **ENTER** button.

3. Press the ▲▼◄► to select Rename a Folder, and then press the **ENTER** button. The Folder Rename window and a keypad appears.

4. Use the keypad to enter a new name, and then press the **ENTER** button. The Rename window closes and the new name appears below the folder.

Lock

The Lock function lets you lock some widgets in My Applications so they can not be opened without entering the Parental Security Code.

To use the Lock function, follow these steps:

1. Press the **YELLOW (C)** button on your remote.

2. Press the ▲▼◄► to select a widget, and then press the **ENTER** button. If the widget can be locked, the Lock menu item is enabled.

3. Press the ▲▼◄► to select Lock, and then press the **ENTER** button. The Lock Service window appears.

4. Enter your Parental Security Code (See pages 50~51). If you have not created a Parental Security Code, enter 0000.

5. Press the **ENTER** button. The Lock Service window appears confirming the lock, and then closes. A lock symbol appears next to the widget.

Network Services

Unlock

1. Press the **YELLOW (C)** button on your remote.
2. Press the ▲▼◄► to select a locked widget, and then press the **ENTER** button.
3. Press the ▲▼◄► to select Unlock, and then press the **ENTER** button. The Lock Service window appears.
4. Enter the Parental Security Code (See pages 50~51). If you have not created a Parental Security Code, enter 0000.
5. Press the **ENTER** button. The Lock Service Released window appears confirming the lock has been release, and then closes.

Delete

The Delete function lets you delete widgets from My Applications. To use the Delete function, follow these steps:

1. Press the **YELLOW (C)** button on your remote.
2. Press the ▲▼◄► to select a widget, and then press the **ENTER** button.
3. Press the ▲▼◄► to select Delete, and then press the **ENTER** button. The message, "Do you want to delete selected item(s)?" appears.
4. Select **Yes**, and then press the **ENTER** button. The widget is deleted.

The Sort Menu - GREEN (B)

The functions in the Sort Menu let you sort the widgets in My Applications by Name, Date, Frequency (of use), and Category. If you manually change the position of a widget, the Sort Menu automatically highlights User Defined when you start it.

To sort the widgets in My Applications, follow these steps:

1. Press the **GREEN (B)** button on your remote.
2. Press the ◄► to select a sorting method, and then press the **ENTER** button. Smart Hub sorts the widgets by the method you have chosen.

Samsung Apps

Samsung Apps lets you download for pay or free-of-charge applications and services to your product and view or use them on your TV.

These applications and services include videos, music, photos, games, news, sports, etc. Widgets for the new apps appear in My Applications.

Additional applications and services are added regularly.

For Pay Apps

To download for pay apps, you need to create a Samsung Apps account and add a credit card to the account.

To create a Samsung Apps account, please visit www.samsung.com

✎ NOTE

- This service may not provided in some countries.

Accessing the Samsung Apps Screen

To access Samsung Apps, press the ▲▼◄► buttons to navigate to the Samsung Apps area on the Smart Hub main screen, and then press the **ENTER** button. The Samsung Apps screen appears.

✎ NOTE

- If this is the first time you are accessing this screen, the terms of service window appears. If you want to agree, Select Agree, and then press the **ENTER** button.

Using the Samsung Apps Screen

To use the Samsung Apps screen, follow these steps:

1. Press the ◄► buttons to move to the category list on the left.
2. Press the ▲▼ to highlight a category. In a few seconds, the Samsung Apps screen displays the applications in that category. The Sort tabs appear across the top.
3. Press the ► button to move to the displayed applications or services.

4. Press the ▲▼◄► buttons to select an application or service, and then press the **ENTER** button. The Application Details screen appears describing the service or application.

5. Select Download Now, and then press the **ENTER** button. If the application or service is free, it downloads and runs. If not, and there is a fee, follow the directions on the screen to complete the download.

✎ **NOTE**

   ▪ Some apps are free to download, but require registration with the provider or a paid account with the provider to use.

   ▪ Widgets for applications and services you have downloaded from Samsung Apps appear in My Applications.

Sort By Tabs

You can access the Sort By tabs on the top of the screen using the ▲▼◄► buttons. Each tab displays the services or applications in the category you chose, sorted by the criteria on the tab (Recommended, Most Downloaded, Most Recent, Name).

You can also use the **BLUE (D)** button on your remote to access the Sort By tabs. Each time you press the **BLUE (D)** button, you change the display from one sort tab to the next.

Samsung Apps by category

The following categories are available:

• **What's New?** : Displays newly registered applications.

• **Video** : Displays various video media such as movies, TV shows, and short length videos.

• **Game** : Displays various games such as sudoku and chess.

• **Sports** : Displays various sports media services such as match information, images, and short length videos.

• **Lifestyle** : Includes various lifestyle media services such as music, personal photo management tools, and social networking such as Facebook and Twitter.

• **Information** : Includes various information services such as news, stocks, and weather.

• **Other** : Includes other miscellaneous services.

My Account

My Account gives you access to your Samsung Apps order and download history, and to the My Apps Cash screen. You must have a Samsung Apps account to access this information.

Help

If you have questions about Samsung Apps, check Help first. If none of the tips apply, please visit the www.samsung.com.

To use the Help function, follow these steps:

1. Press the ▲▼◄► buttons to select Help, and then press the **ENTER** button.

2. Press the ▲▼ to scroll the Help text.

3. Press the ◄ to exit Help.

Using the colored buttons on your remote with Samsung Apps

• **RED (A) (Login)** : To log into your Smart TV Account.

• **GREEN (B) (Thumbnail View/List View)** : To toggle applications between Thumbnail and List view.

• **BLUE (D) (Sort By)** : To sort the applications in a category by Recommended, Most Downloaded, Most Recent, or Name.

• **Return** : To return to the previous menu.

✎ **NOTE**

   ▪ The Internet contents services may be added or deleted by providers without notice.

For instructions to use Your Video or Search Function, please visit www.samsung.com

Network Services

BD-LIVE™

Once the product is connected to the network, you can enjoy various movie-related service contents using a BD-LIVE compliant disc.

1. Check the size of the remaining memory. The total size of HDD must have at least 1GB of free space to accommodate the BD-LIVE services.
2. Insert a Blu-ray Disc that supports BD-LIVE.
3. Select an item from various BD-LIVE service contents provided by the disc manufacturer.

✎ NOTE

  ▪ The way you use BD-LIVE and the provided contents may differ, depending on the disc manufacturer.

Using the AllShare Function

AllShare lets you play music, video, and photo files located in your PC or your DLNA compatible mobile phone or NAS on the product.

To use AllShare with your product, you must connect the product to your network (See pages 30~31).

To use AllShare with your PC, you must install AllShare software on your PC.

If you have a DLNA compatible mobile phone or NAS, you can use AllShare without any additional software.

You can download the PC software and get detailed instructions for using AllShare from the Samsung.com web site.

Auto Back up

You can save and play video, photos, and music saved in Samsung products using Auto backup to this product without USB connecting.
When the external device is connected to this product for the first time, Device Access Control message pop-up appears on this product's display. If you want to use Auto Backup function, select Allow.
Device Access Control setting is able to set in AllShare Server Management. (See page 48)

✎ NOTE

  ▪ The Auto Backup function cannot be used these following functions at the same time.

    - Playing back files (Recorded TV, Videos, Photos, Music) or access to browser, in My Contents or My Devices menu.

    - Software Upgrade

    - HDD Format, Performance test, Device test

    - Network Settings.

Appendix

Troubleshooting

Before requesting service, please check the following.

PROBLEM	SOLUTION
No operation can be performed with the remote control.	• Check the batteries in the remote control. They may need replacing. • Operate the remote control at a distance of no more than 6.1m. • Remove batteries and hold down one or more buttons for several minutes to drain the microprocessor inside the remote control to reset it. Reinstall batteries and try to operate the remote control again.
Disc does not play.	• Ensure that the disc is installed with the label side facing up. • Check the region number of the Blu-ray Disc/DVD.
Disc Menu does not appear.	• Ensure that the disc has disc menus.
The prohibition message appears on the screen.	• This message appears when an invalid button is pressed. • The Blu-ray Disc/DVD's software doesn't support the feature (e.g., angles). • You've requested a title or chapter number or search time that is out of range.
Play mode differs from the Setup Menu selection.	• Some of the functions selected in the Setup Menu may not work properly if the disc is not encoded with the corresponding function.
The screen ratio cannot be changed.	• The Screen Ratio is fixed on your Blu-ray Disc/DVD. • This is not a problem with the product.
No audio.	• Make sure you have selected the correct Digital Output in the Audio Options Menu.
The screen is blocked	• If the HDMI output is set to a resolution your TV cannot support (for example, 1080p), you may not see a picture on your TV. • Press the **MENU** button to display home menu. Press the **STOP** (▪) button on the front panel of the product for more than 5 seconds with no disc inserted. • When the factory default settings are restored, all stored user BD data is deleted.

Appendix

PROBLEM	SOLUTION
Forgot password	• Press the **MENU** button to display home menu. Press the **STOP** (■) button on the front panel of the product for more than 5 seconds with no disc inserted. Don't use this unless absolutely necessary. • When the factory default settings are restored, all stored user BD data is deleted.
If you experience other problems.	• Go to the contents and find the section of the user manual that contains the explanations regarding the current problem, and follow the procedure once again. • If the problem still cannot be solved, please contact your nearest Samsung authorized service centre.
The picture is noisy or distorted	• Make sure that the disc is not dirty or scratched. • Clean the disc.
No HDMI output.	• Check the connection between the TV and the HDMI jack of the product. • Check if your TV supports 576p/480p, 720p, 1080i, 1080p HDMI input resolution.
Abnormal HDMI output screen.	• If random noise appears on the screen, it means that TV does not support HDCP (High-bandwidth Digital Content Protection).
AllShare function	
I can see folders shared through AllShare, but I cannot see the files.	• AllShare shows only files corresponding to the Image, Music, and Movie categories. Files that do not correspond to these categories may not be displayed.
Video is played intermittently.	• Check if the network is stable. • Check if the network cable is properly connected and if the network is not overloaded. • The wireless connection between the DLNA compatible device and the product is unstable. Check the connection.
AllShare connection between BD-HDD Combo and PC is unstable.	• The IP address under the same subnetwork should be unique. If they are not, IP interference can cause this phenomenon. • Check if you have a firewall enabled. If so, disable the firewall function.

PROBLEM	SOLUTION
BD-LIVE	
I cannot connect to the BD-LIVE server.	• Check whether the network connection is successful or not by using the Network Status menu. (See page 47) • The total size of device must have at least 1GB of free space to accommodate the BD-Live service. You can check the available size in BD Data Management. (See pages 49~50) • Check whether the BD-Live Internet Connection menu is set to Allow(All). • If all above fails, contact the contents provider or update the product to the latest firmware.
When using the BD-LIVE service, an error occurs.	• The total size of device must have at least 1GB of free space to accommodate the BD-LIVE service. You can check the available size in BD Data Management. (See pages 49~50)
Recording	
"Performance test failed." message appears, and also Timer recording and Time Shift function does not work.	• Using lower quality USB storage device not supporting Recording function can cause this kind of problem. It is recommended to use USB HDD storage device. • Recommended specification of USB HDD is at least 5400 rpm. USB HDD of RAID type is not supported.

✎ **NOTE**

  ▪ When the factory default settings are restored, all stored user BD data is deleted.

Repairs

If you contact us to repair your product, an administration fee may be charged if either:

1. An engineer is called out to your home at your request and there is no defect in the product.

2. You bring the unit to a repair centre and there is no defect in the product.

We will provide you with the amount of the administration fee before we make a home visit or begin any work on your product.
We recommend you read this manually thoroughly, search for a solution on line at www.samsung.com, or contact Samsung Customer Care before seeking to repair your product.

Appendix

Specifications

General	Weight	3.6 Kg
	Dimensions	430 (W) X 299 (D) X 64 (H) mm
	Operating Temperature Range	+5°C to +35°C
	Operating Humidity Range	10 % to 75 %
Disc	BD (Blu-ray Disc)	Reading Speed : 4.917 m/sec.
	DVD (Digital Versatile Disc)	Reading Speed : 3.49 ~ 4.06 m/sec.
		Approx. Play Time (Single Sided, Single Layer Disc) : 135 min.
	CD : 12 cm (COMPACT DISC)	Reading Speed : 4.8 ~ 5.6 m/sec.
		Maximum Play Time : 74 min.
	CD : 8 cm (COMPACT DISC)	Reading Speed : 4.8 ~ 5.6 m/sec.
		Maximum Play Time : 20 min.
Video Output	Composite Video	1 Channel : 1.0 Vp-p (75Ω load)
		Blu-ray Disc/DVDs : 576i/480i
	Component Video	Y : 1.0 Vp-p (75Ω load)
		P_R : 0.70 Vp-p (75Ω load)
		P_B : 0.70 Vp-p (75Ω load)
		Blu-ray Disc : 576i/480i
		DVD : 576p/480p, 576i/480i
Video/Audio	HDMI	1080p, 1080i, 720p, 576p/480p
		PCM multichannel audio, Bitstream audio
Audio Output	Analogue Audio Output	2 Channel, (2Vrms ± 10%)
	Digital Audio Output	Optical
Network	Ethernet	10/100BASE-TX Terminal
	Wireless LAN	Built-in
	Security	WEP(OPEN/SHARED) WPA-PSK(TKIP/AES) WPA2-PSK(TKIP/AES)
	WPS(PBC)	Supported
HDD Capacity	BD-D8200M	250 GB
	BD-D8500M	500 GB

- Design and specifications are subject to change without prior notice.
- For the power supply and power consumption, refer to the label attached to the product.
- Weight and dimensions are approximate.

Appendix

Compliance and Compatibility Notice

NOT ALL discs are compatible
- Subject to the restrictions described below and those noted throughout this Manual, including the Disc Type and Characteristics section of this user manual, disc types that can be played are: pre-recorded commercial BD-ROM, DVD-VIDEO, and Audio CD (CD-DA) discs; BD-RE/-R, DVD-RW/-R discs; and CD-RW/-R discs.
- Discs other than the above cannot and/or is not intended to be played by this product. And some of the above discs may not play due to one or more reasons provided below.
- Samsung cannot assure that this product will play every disc bearing the BD-ROM, BD-RE/-R, DVD-VIDEO, DVD-RW/-R, DVD+RW/+R and CD-RW/-R logos, and this product may not respond to all operating commands or operate all features of every disc. These and other disc compatibility and product operation issues with new and existing format discs are possible because:
  - Blu-ray is a new and evolving format and this product may not operate all features of Blu-ray Discs because some features may be optional, additional features may have been added to the Blu-ray Disc format after the production of this product, and certain available features may be subject to delayed availability;
  - not all new and existing disc format versions are supported by this product;
  - new and existing disc formats may be revised, changed, updated, improved and/or supplemented;
  - some discs are produced in a manner that allows specific or limited operation and feature during playback;
  - some features may be optional, additional features may have been added after the production of this product or certain available features may be subject to delayed availability;
  - some discs bearing the BD-ROM, BD-RE/-R, DVD-VIDEO, DVD-RW/-R, DVD+RW/+R and CD-RW/-R logos may still be non-standardized discs;
  - some discs may not be played depending on their physical state or recording conditions;
  - problems and errors can occur during the creation of Blu-ray Disc, DVD software and/or the manufacture of discs;
  - this product operates differently than a standard DVD product or other AV equipment; and/or
  - for reasons noted throughout this user manual and for other reason(s) discovered and posted by SAMSUNG customer care centre.
- If you encounter disc compatibility or product operation problems, please contact SAMSUNG customer care centre.
  You may also contact SAMSUNG customer care centre for possible updates on this product.
- For additional information on playback restrictions and disc compatibility, refer to the Precautions, Before Reading the user manual, Disc Types and Characteristics, and Before Playing sections of this user manual.

Copy Protection

- Because AACS (Advanced Access Content System) is approved as content protection system for Blu-ray Disc format, similar to use of CSS (Content Scramble System) for DVD format, certain restrictions are imposed on playback, analogue signal output, etc., of AACS protected contents. The operation of this product and restrictions on this product may vary depending on your time of purchase as those restrictions may be adopted and/or changed by AACS after the production of this product. Furthermore, BD-ROM Mark and BD+ are additionally used as content protection system for Blu-ray Disc format, which imposes certain restrictions including playback restrictions for BD-ROM Mark and/or BD+ protected contents. To obtain additional information on AACS, BD-ROM Mark, BD+, or this product, please contact SAMSUNG customer care centre.

- Many Blu-ray Disc/DVDs are encoded with copy protection. Because of this, you should only connect your Product directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected Blu-ray Disc/DVDs.
- This item incorporates copy protection technology that is protected by U.S. patents and other intellectual property rights of Rovi Corporation. Reverse engineering and disassembly are prohibited.
- Under the U.S. Copyright laws and Copyright laws of other countries, unauthorized recording, use, display, distribution, or revision of television programs, videotapes, Blu-ray Discs, DVDs, and other materials may subject you to civil and/or criminal liability.
- **For BD-HDD Combo progressive scan output :** CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPATIBILITY WITH THIS PRODUCT, PLEASE CONTACT OUR CUSTOMER SERVICE CENTRE.

Network Service Disclaimer

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Samsung is neither responsible nor liable for customer service related to the content and services. Any question or request for service relating to the content or services should be made directly to the respective content and service providers.

Appendix

Licence

- Manufactured under licence from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

- Manufactured under licence under U.S. Patent #'s : 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535; 7,212,872; 7,333,929; 7,392,195; 7,272,567 & other U.S. and worldwide patents issued & pending. DTS and the Symbol are registered trademarks, & DTS-HD, DTS-HD Master Audio, and the DTS logos are trademarks of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.

- DivX
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  - ABOUT DIVX VIDEO-ON-DEMAND : This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.
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  - This application incorporates software and technology of Rovi Corporation ("Rovi"). The Rovi software and technology (collectively, the "Rovi Technology") allows End Users to access music-related data ("Rovi Data") over the Internet and otherwise from proprietary Rovi databases (the "Rovi Databases") located on Rovi servers (the "Rovi Servers") and to perform other functions. You may access and use Rovi Data only by means of the intended End User functions of this application software.
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• Open Source Licence Notice
  - In the case of using open source software, Open Source Licences are available on the product menu.

• Blu-ray Disc™, Blu-ray™, and the logos are trademarks of Blu-ray Disc Association.

• DGTVi Licence Related Notice
  - This Blu-ray works with CI and CI+ CAM but it is not Certify from DGTVi association.

Recommendation - EU Only

• Hereby, Samsung Electronics, declares that this BD-HDD Combo is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The official Declaration of Conformity may be found at http://www.samsung.com, go to Support > Search Product Support and enter the model name.
This equipment may only be used indoors.
This equipment may be operated in all EU countries.

UNITED KINGDOM

EIRE

This Samsung product is warranted for the period of twelve (12) months from the original date of purchase, against defective materials and workmanship. In the event that warranty service is required, you should return the product to the retailer from whom it was purchased.
However, Samsung Authorised Dealers and Authorised Service Centres in other EC Countries will comply with the warranty on the terms issued to purchasers in the country concerned.
In case of difficulty, details of our Authorised Service Centres are available from:

Samsung Electronics U.K. Ltd.
Customer Care Centre PO Box 17243 Edinburgh, EH11 4YB United Kingdom

United Kingdom
Tel : 0845 SAMSUNG (7267864)
Fax : 0845 650 8080
Web : www.samsung.com
EIRE
Tel : 0818 717 100
Fax : +44 (0)131 202 0630
Web : www.samsung.com/ie

■ WARRANTY CONDITIONS

1. The warranty is only valid if, when warranty service is required, the warranty card is fully and properly completed and is presented with the original invoice or sales slip or confirmation, and the serial number on the product has not been defaced.

2. Samsung's obligations are limited to the repair or, at its discretion, replacement of the product or the defective part.

3. Warranty repairs must be carried out by Authorised Samsung Dealers or Authorised Service Centres.
No re-imbursement will be made for repairs carried out by non Samsung Dealers and, any such repair work and damage to the products caused by such repair work will not be covered by this warranty.

4. This product is not considered to be defective in materials nor workmanship by reason that it requires adaptation in order to conform to national or local technical or safety standards in force in any Country other than the one for which the product was originally designed and manufactured. This warranty will not cover, and no re-imbursement will be made for such adaptation nor any damage which may result.

5. This warranty covers none of the following:

   a) Periodic check ups, maintenance and repair or replacement of parts due to normal wear and tear.

   b) Cost relating to transport, removal or installation of the product.

   c) Misuse, including the faiure to use this product for its normal purposes or incorrect installation.

   d) Damage caused by Lightning, Water, Fire, Acts of God, War, Public Disturbances, incorrect mains voltage, improper ventilation or any other cause beyond the control of Samsung.

6. This warranty is valid for any person who legally acquired possession of the product during the warranty period.

7. The consumers statutory rights in any applicable national legislation whether against the retailer arising from the purchase contract or otherwise are not affected by this warranty. Unless there is national legislation to the contrary, the rights under this warranty are the consumers sole rights and Samsung, its subsidiaries and distributors shall not be liable for indirect or consequential loss or any damage to records, compact discs, videos or audio taper or any other related equipment or material.

SAMSUNG ELECTRONICS (U.K.) LTD.

Contact SAMSUNG WORLD WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.

Area	Contact Centre ☎	Web Site
▪ North America		
Canada	1-800-SAMSUNG (726-7864)	www.samsung.com
Mexico	01-800-SAMSUNG (726-7864)	www.samsung.com
U.S.A	1-800-SAMSUNG (726-7864)	www.samsung.com
▪ Latin America		
Argentine	0800-333-3733	www.samsung.com
Brazil	0800-124-421 / 4004-0000	www.samsung.com
Chile	800-SAMSUNG (726-7864)	www.samsung.com
Colombia	01-8000112112	www.samsung.com
Costa Rica	0-800-507-7267	www.samsung.com
Dominica	1-800-751-2676	www.samsung.com
Ecuador	1-800-10-7267	www.samsung.com
El Salvador	800-6225	www.samsung.com
Guatemala	1-800-299-0013	www.samsung.com
Honduras	800-7919267	www.samsung.com
Jamaica	1-800-234-7267	www.samsung.com
Nicaragua	00-1800-5077267	www.samsung.com
Panama	800-7267	www.samsung.com
Peru	0-800-777-08	www.samsung.com
Puerto Rico	1-800-682-3180	www.samsung.com
Trinidad & Tobago	1-800-SAMSUNG (726-7864)	www.samsung.com
Venezuela	0-800-100-5303	www.samsung.com
▪ Europe		
Albania	42 27 5755	-
Austria	0810 - SAMSUNG (7267864, € 0.07/min)	www.samsung.com
Belgium	02-201-24-18	www.samsung.com/be (Dutch) www.samsung.com/be_fr (French)
Bosnia	05 133 1999	-
Bulgaria	07001 33 11	www.samsung.com
Croatia	062 SAMSUNG (062 726 7864)	www.samsung.com
Czech	800-SAMSUNG (800-726786) Samsung Zrt., česká organizační složka, Oasis Florenc, Soko-lovská394/17, 180 00, Praha 8	www.samsung.com
Denmark	70 70 19 70	www.samsung.com
Finland	030 - 6227 515	www.samsung.com
France	01 48 63 00 00	www.samsung.com
Germany	01805 - SAMSUNG (726-7864 € 0,14/Min)	www.samsung.com
Hungary	06-80-SAMSUNG (726-7864)	www.samsung.com
Italia	800-SAMSUNG (726-7864)	www.samsung.com
Kosovo	+381 0113216899	-
Luxemburg	261 03 710	www.samsung.com
Macedonia	023 207 777	-
Montenegro	020 405 888	-
Netherlands	0900-SAMSUNG (0900-7267864) (€ 0,10/Min)	www.samsung.com
Norway	815-56 480	www.samsung.com
Poland	0 801 1SAMSUNG (172678) / 022-607-93-33	www.samsung.com
Portugal	80820-SAMSUNG (726-7864)	www.samsung.com
Rumania	1. 08010 SAMSUNG (72678) - doar din reţeaua Romtelecom, tarif local 2. 021.206.01.10 - din orice reţea, tarif normal	www.samsung.com

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Serbia	0700 Samsung (0700 726 7864)	www.samsung.com
Slovakia	0800-SAMSUNG (726-7864)	www.samsung.com
Spain	902-1-SAMSUNG (902 172 678)	www.samsung.com
Sweden	0771 726 7864 (SAMSUNG)	www.samsung.com
Switzerland	0848-SAMSUNG (7267864, CHF 0.08/min)	www.samsung.com/ch www.samsung.com/ch_fr/(French)
U.K	0330 SAMSUNG (7267864)	www.samsung.com
Eire	0818 717100	www.samsung.com
Lithuania	8-800-77777	www.samsung.com
Latvia	8000-7267	www.samsung.com
Estonia	800-7267	www.samsung.com
▪ CIS		
Russia	8-800-555-55-55	www.samsung.com
Georgia	8-800-555-555	-
Armenia	0-800-05-555	-
Azerbaijan	088-55-55-555	-
Kazakhstan	8-10-800-500-55-500 (GSM: 7799)	www.samsung.com
Uzbekistan	8-10-800-500-55-500	www.samsung.com
Kyrgyzstan	00-800-500-55-500	www.samsung.com
Tadjikistan	8-10-800-500-55-500	www.samsung.com
Ukraine	0-800-502-000	www.samsung.ua www.samsung.com/ua_ru
Belarus	810-800-500-55-500	-
Moldova	00-800-500-55-500	-
▪ Asia Pacific		
Australia	1300 362 603	www.samsung.com
New Zealand	0800 SAMSUNG (0800 726 786)	www.samsung.com
China	400-810-5858 / 010-6475 1880	www.samsung.com
Hong Kong	(852) 3698 4698	www.samsung.com/hk www.samsung.com/hk_en/
India	3030 8282 / 1800 110011 / 1800 3000 8282 / 1800 266 8282	www.samsung.com
Indonesia	0800-112-8888 / 021-5699-7777	www.samsung.com
Japan	0120-327-527	www.samsung.com
Malaysia	1800-88-9999	www.samsung.com
Philippines	1-800-10-SAMSUNG(726-7864) / 1-800-3-SAMSUNG(726-7864) / 1-800-8-SAMSUNG(726-7864) / 02-5805777	www.samsung.com
Singapore	1800-SAMSUNG (726-7864)	www.samsung.com
Thailand	1800-29-3232 / 02-689-3232	www.samsung.com
Taiwan	0800-329-999	www.samsung.com
Vietnam	1 800 588 889	www.samsung.com
▪ Middle East		
Bahrain	8000-4726	www.samsung.com
Egypt	08000-726786	www.samsung.com
Jordan	800-22273	www.samsung.com
Morocco	080 100 2255	www.samsung.com
Oman	800-SAMSUNG (726-7864)	www.samsung.com
Saudi Arabia	9200-21230	www.samsung.com
Turkey	444 77 11	www.samsung.com
U.A.E	800-SAMSUNG (726-7864)	www.samsung.com
▪ Africa		
Nigeria	0800-SAMSUNG (726-7864)	www.samsung.com
South Africa	0860-SAMSUNG (726-7864)	www.samsung.com

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Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols *Hg*, *Cd* or *Pb* indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

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